

December 25, 1961

PULP & PAPER



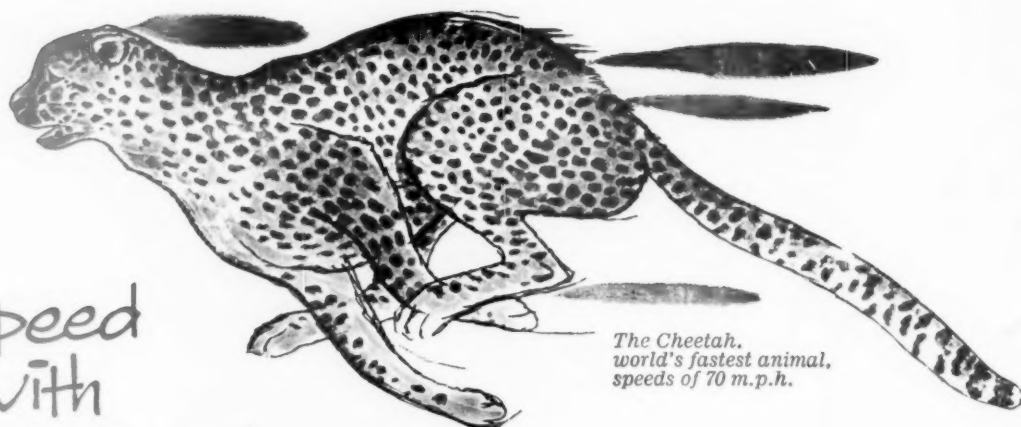
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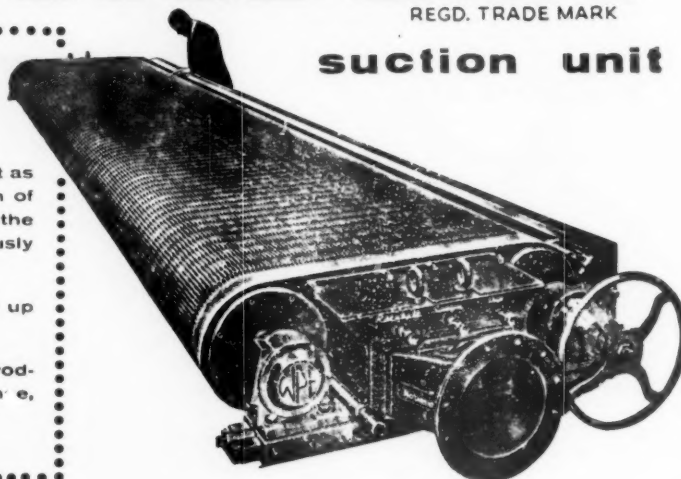
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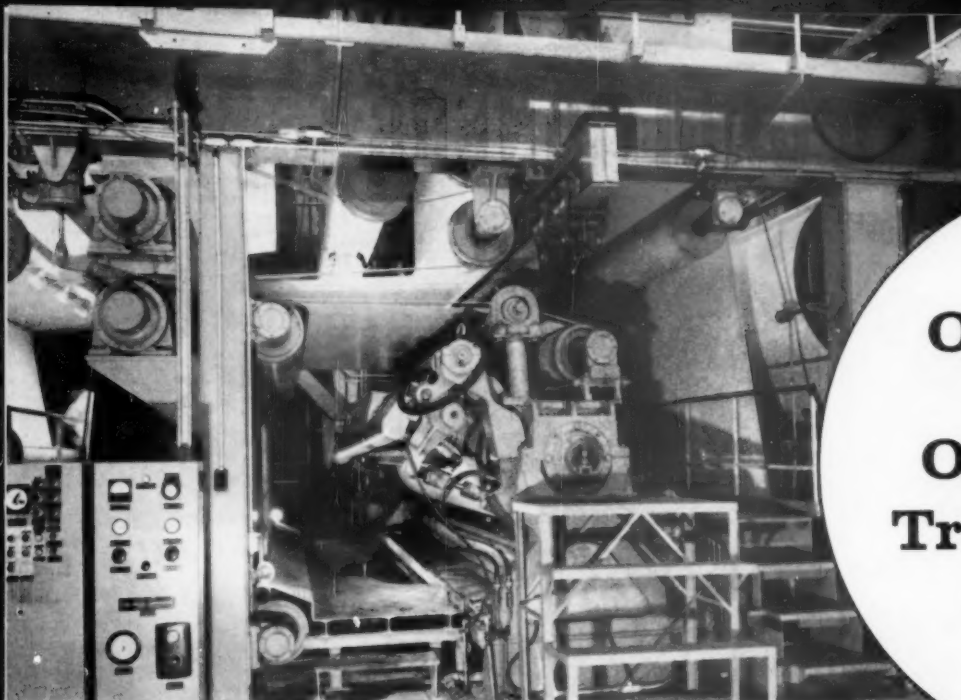


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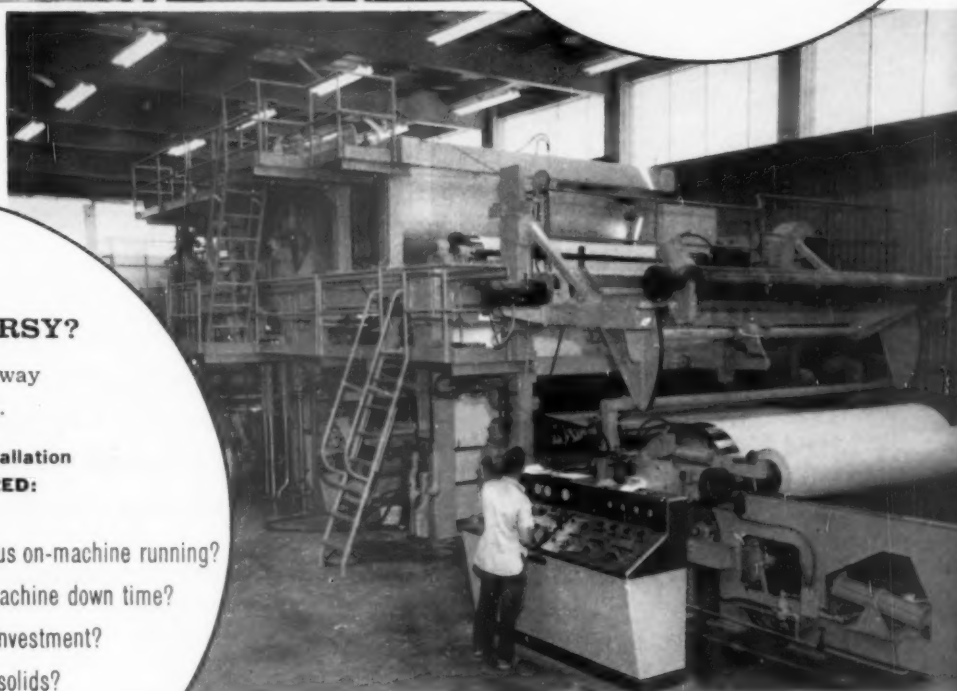
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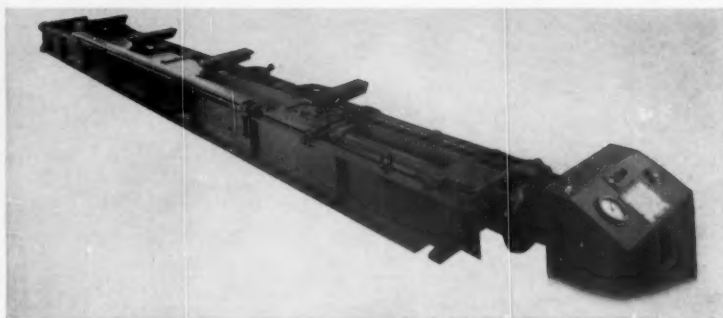
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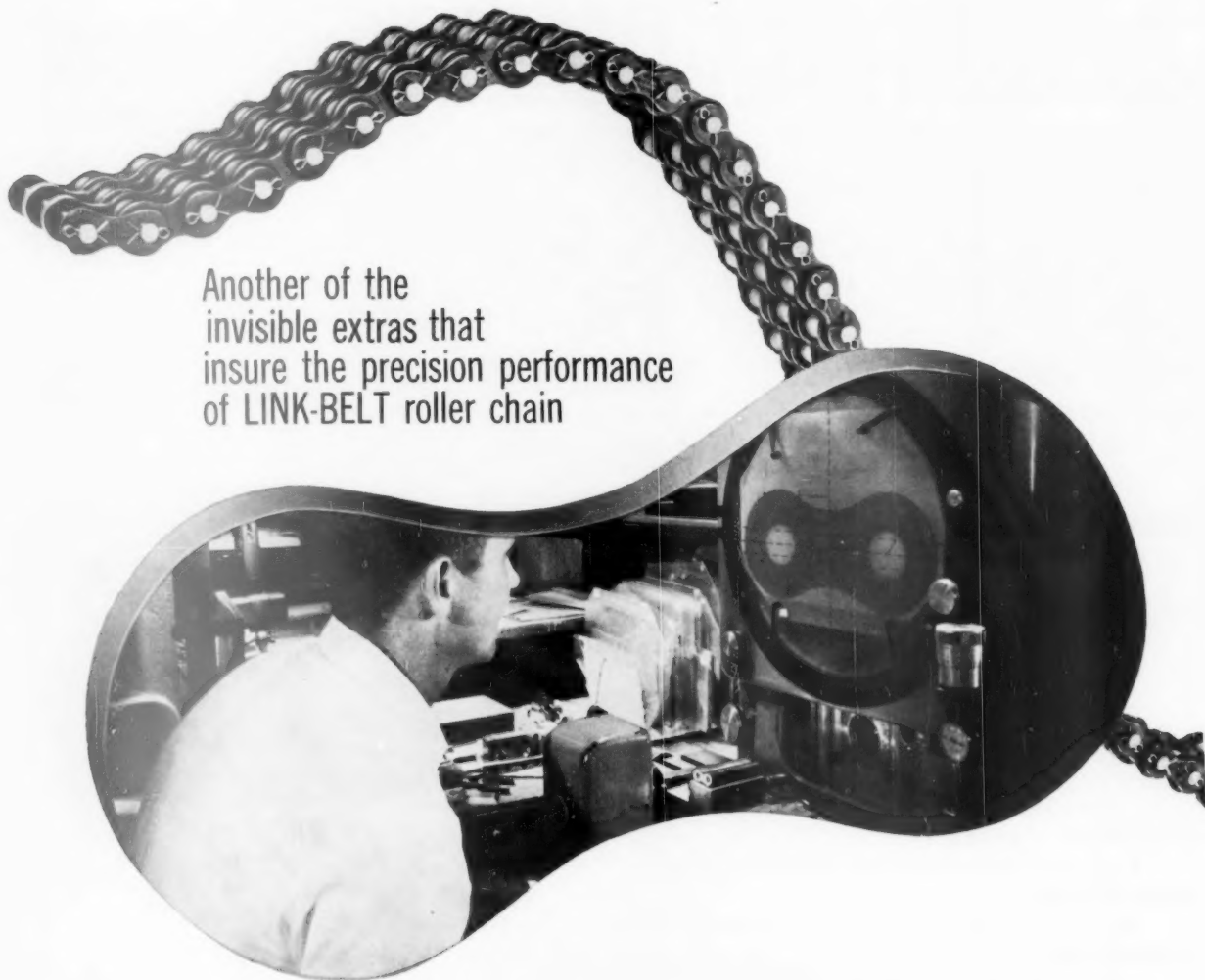
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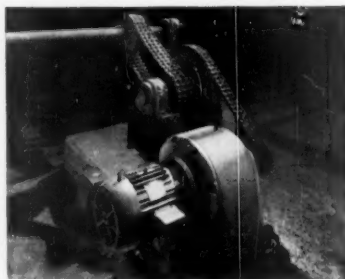
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NEWS DIGEST...

AEC decides to defer nuclear power

plant for a paper mill, after all the efforts expended on this project (exclusively reported in PULP & PAPER June 12 and Aug. 21). President Kennedy asked agencies to postpone deferrable projects, so AEC decided not to go ahead "at this time" with the low temperature process heat reactor for which Brown Co., Fitchburg Paper Co., Huss-Ontonagon Pulp & Paper Co., Franconia Paper Co., Shawano Paper Co., Packaging Corp. of America and Thames River Chemical Corp. had made bids. AEC was preparing to ask for "definitive proposals" when the President intervened. Increased defense measures is believed a major reason for curtailing civilian projects.

Scandinavians will reduce pulp

production to about 1,000,000 tons below their pulp producing capacity in 1962. This agreement is dictated by what is described as a "stagnant" situation in the European market. No changes in pulp prices are planned next quarter in U.S. or Europe by any suppliers. Scandinavians reduced pulp prices for the fourth quarter in Europe. Their stockpiles are high. Mechanical pulp markets reduced output about 30%.

A much better year for paper

looms ahead, says President T. B. McCabe of Scott Paper Co. He says: "The 1962 operating rate for the U.S. paper industry will exceed 1961, even though capacity will be increased by nearly one million tons. Investment in plant and equipment will exceed

\$750,000,000. Paper and paperboard production will reach 37 to 37.5 million tons, I believe. For 1961 it is expected to reach nearly 35.5 million. 1962's increase will be above 3 to 4% annual average."

Paper mill is not being planned

at present, says Penobscot Chemical Fibre in response to rumors that it was. Although PCF says its long-range objective is to add a paper machine, it has no such plans for at least five years. Explains PCF's President Eugene H. Clapp, "We expect to be a market pulp mill for the indefinite future regardless of whether or not a paper machine is installed."

High production levels of 94%

of capacity were recorded by paper and paperboard for November. Both segments of the industry achieved 90% operation for the first 11 months. As at Dec. 9, paperboard production had topped 15,732,779 tons, had produced 338,958 tons for that week, operating at 95% capacity.

Strikes are still plaguing

paper industry, with the strike at the Bogalusa, (La.) mill, Gaylord division, Crown Zellerbach, which started last summer, still continuing at press time. Prospects for settlement of the 3½-month-old Peavy Paper Mill strike at Ladysmith, Wis., appeared dismal, according to federal mediators. But 186 of 280 members of the striking unions were back at work and the 60-ton 3-machine tissue mill was running at 80% of capacity.

..... POLLUTION

State order may close mill

says Weyerhaeuser, if present demands are enforced

SEATTLE—Weyerhaeuser Co. has filed an affidavit with the Washington state pollution commission indicating that the firm's Everett market sulfite pulp mill probably would discontinue operations if the commission's present demands are enforced.

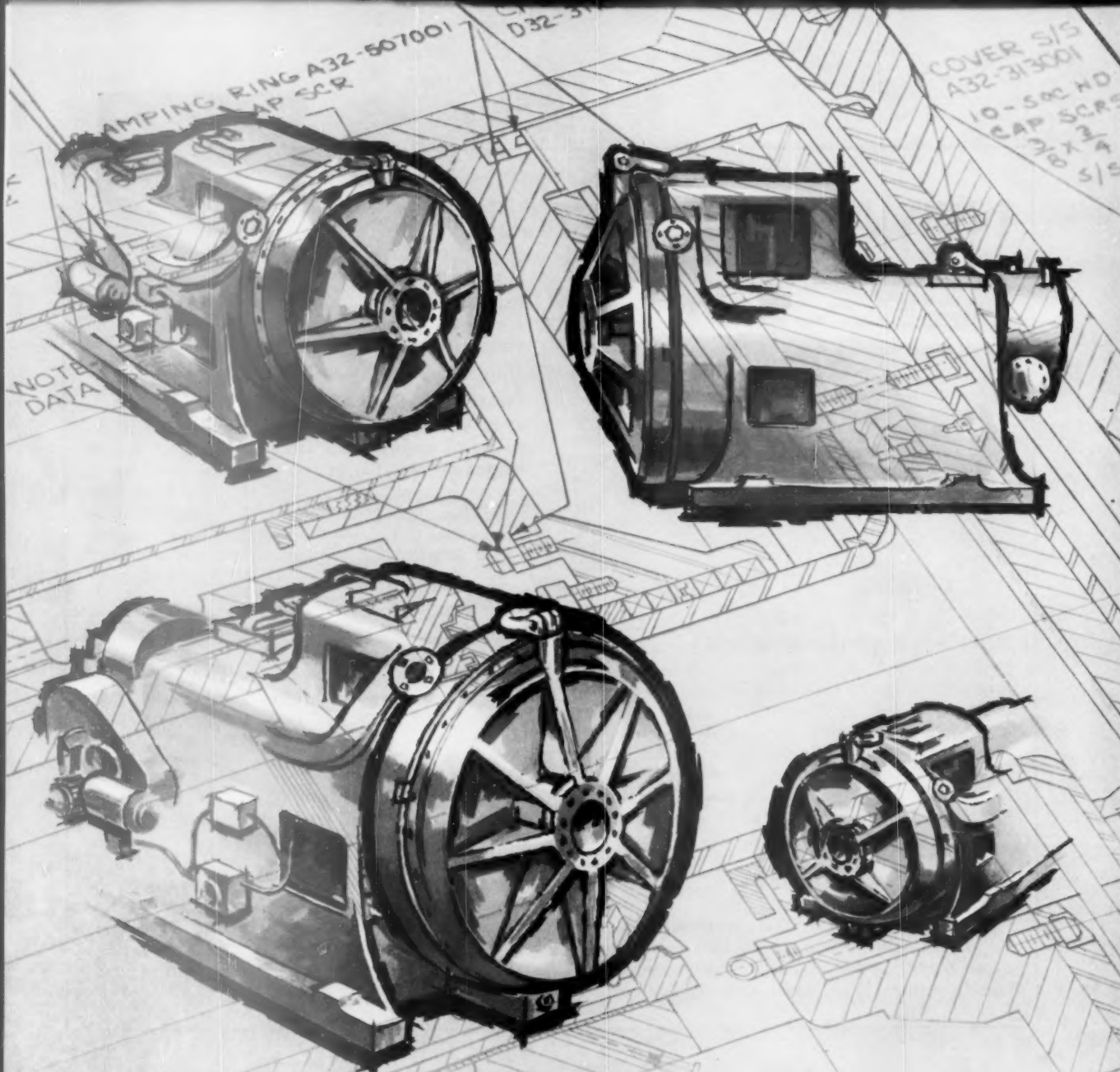
The mill now pipes effluent far out into Puget Sound, arm of the Pacific Ocean. The pipeline was hailed as satisfactory several years ago by the

pollution commission then in power. The mill has added diffusing equipment and other facilities since then for effluent.

John McEwen, manager of the sulfite mill, recently said the new order requiring a recovery plant or similar facility to recover 85% of solids would cost more than all the investments made to date in this mill, including the original plant and all plant additions.

The Everett sulfite mill is a supplier of specialty paper pulps and dissolving pulps to numerous paper mills and other converters in Eastern United States. At times its pulp has gone to as many as 75 to 100 paper mills east of the Rockies. Its annual production is usually well above 100,000 tons.

The Weyerhaeuser affidavit was filed at the seventh of nine pre-



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Jones

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STOCK PREPARATION MACHINERY

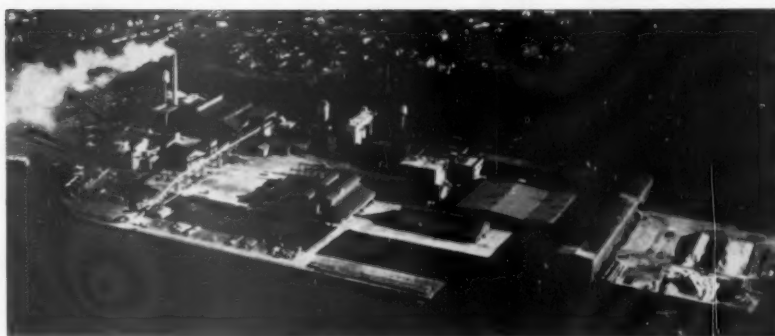
CANADIAN ASSOCIATES: THE ALEXANDER FLECK LTD., 75 SPENCER STREET, OTTAWA

..... POLLUTION

hearing conferences instituted by the industry as result of requirements issued by the commission. These call for installation of unspecified waste removal facilities, to be operative by late 1963 at all operating mills now holding temporary discharge permits. There are 10 such plants in the state. All but one are protesting the commission's orders on the basis the mills are not harming water quality, fish or other marine life. They also contend the state has refused to establish water quality standards by which to define what constitutes pollution.

The commission examiner conducting the pre-hearing meetings announced at the seventh conference, held in Seattle, that the mills do not have to meet new permit requirements before the hearings are completed. The examiner, Joseph Holleman, said the postponement was allowed because no emergency or danger to public health exists.

Vinton W. Bacon, executive secretary of Northwest Pulp & Paper Assn., stated the industry's position as follows: "The mills are not believed to be causing 'undue' pollution. Discharge of wastes is a legitimate water use if it does not harm others. The state has set no water standards defining undue pollution—which is required by law. In essence, we have



IF POLLUTION COMMISSION stands pat, this 300 tons per day market pulp mill probably will cease operations.

been asked to abolish or completely eliminate our wastes."

Earl Coe, chairman of the state pollution control commission, said of his group's orders, "We are asking them (the mills) to remove their solids which are not necessarily by-products of sulfite waste liquor but are solids that they convert into pulp, and finer screens or better processes such as magnesium or soda processes, etc., which have been proved by the industry to be advantageous."

The Weyerhaeuser Everett mill several years ago installed a huge pipeline far out into Puget Sound, in cooperation with the nearby Scott mill,

which the pollution commission then approved as a disposal system.

Major equipment at the Weyerhaeuser sulfite mill includes seven digesters, a 156 inch Minton vacuum dryer, a wet machine and a bleach plant. This mill made industry history when it was one of the first two (also Crown Zellerbach's Port Townsend mill) to introduce whole log hydraulic barking in the early 1940's. (See Last Word, page 118, Dec. 11th issue—editorial on pollution problems in Washington and elsewhere).

A dock fire recently destroyed a dock and warehouse where a large supply of pulp was stored. ■

..... BUSINESS

1962 will be much better

says St. Regis; over-capacity laid to 'newcomers'

Two top officers of St. Regis Paper Co. have painted a much brighter 1962 for the paper industry and one of them came out flatly for "a free market on a worldwide basis." Both said there will be price rises.

NEW YORK—A free world wide market was favored by Roy K. Ferguson, chairman of the board, St. Regis Paper Co., in a recent interview in the *Journal of Commerce*.

But American business will lose a substantial volume of export business if the European market or markets exclude American products by preferential tariffs, he said.

There has been an increase of 20% in American paper exports, this year, said Mr. Ferguson. It will be a 55% gain over 1955.

"We could compete in a free world-wide market with Scandinavia, for example," he was quoted as saying.



"We can compete in a free market ... with Scandinavia ..." FERGUSON

"But preferential rates in the Common Market would be a distinct handicap." Presumably, he meant if Scandinavia joins the market.

Paper volume has been increasing since mid-July and price rises are being effected gradually, as new con-

tracts are signed, he said. He estimated St. Regis' sales will rise 15 to 20% in 1962, over this year's record breaking \$555- to \$560 million, earnings rising \$2.25 to \$2.50 a share over 1961's \$1.55 to \$1.60.

Paper will double in 20 years but current expansion slows

ST. LOUIS—All scientific projections indicate another doubling of paper industry volume in 20 years, but the current cycle of expansion has about run its course, William R. Adams, St. Regis president, told the St. Louis Society of Financial Analysts.

New capacity by both the "newcomers" and long-established companies will be nominal in 1962 and 1963, he said.

Many lumber companies entered the industry because . . . turn to p. 13



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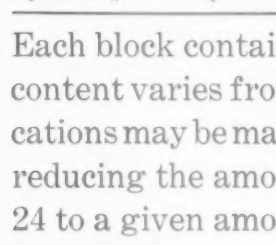
SQUARE #1-0



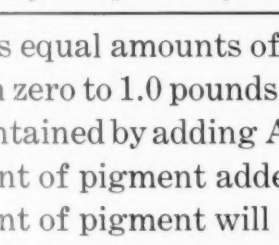
SQUARE #2-.25 lbs. per ton



SQUARE #3-.5 lbs. per ton



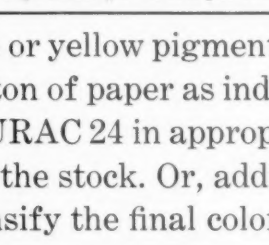
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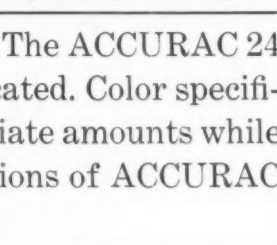
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SQUARE #4-1.0 lbs. per ton



Each block contains equal amounts of blue or yellow pigment. The ACCURAC 24 content varies from zero to 1.0 pounds per ton of paper as indicated. Color specifications may be maintained by adding ACCURAC 24 in appropriate amounts while reducing the amount of pigment added to the stock. Or, additions of ACCURAC 24 to a given amount of pigment will intensify the final color.

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Aids retention of fillers and costly pigments such as TiO_2 and colored pigments. Same color specifications with less pigment added. Retention of fines for improved formation of the sheet. Less fines in white water. Less load on

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CYANAMID



WATER COLOR PAINTING BY L. J. A. NEESE

BELOIT'S RESEARCH CENTER, first opened in May of 1961, serves the paper industry with 45,000 square feet of modern plant and facilities. Advancement of technology and understanding for better papermaking are objectives of Beloit's continuing research and development program.





starts on p. 7 . . . the return from pulp and paper was better than from lumber and plywood. Many later added box, bag and converting capacity, said Mr. Adams. He cited metal and glass companies who wanted to "round out into the fastest growing packaging medium—paper—and into boxes and bags." He noted that some paper industries with large timber and mill investments "felt more secure by building box, bag and converting plants.

"To many, the new paper mill was the biggest investment they ever had made, and it had to be kept running," he added. "At a time when we needed and could fully justify price increases, a unique, and probably non-recurring set of circumstances prevented it," Mr. Adams stated.

Price restorations, now possible, still will leave paper with one of the



Diminishing profits a national trend—
not just in paper . . ." ADAMS

lowest post-war price increases among basic manufactured products, said Mr. Adams. "The price problem comes from conditions within the industry and can be solved as those conditions disappear. Unlike steel, lumber, copper and other materials, paper does

not need to heed competitive as well as cost factors. Paper has no serious competitors, so its price problems are internal."

Plastics has replaced paper in some fields, but paper-plastic combinations "more than compensate" and paper continues to invade fields of wood, steel, cotton, burlap, and glass, and TV, radio and telephone have not slowed its growth in communications, he said.

Cost-saving investments permitted some off-set to rising labor and other costs, but prices of paper, paperboard and related products will have to move higher to meet these costs, he added.

"Facts do not support the charge that declining paper earnings are unique," he told the financial men. The 1955 to 1961 comparison is the same for other manufacturers as for paper, he declared. ■

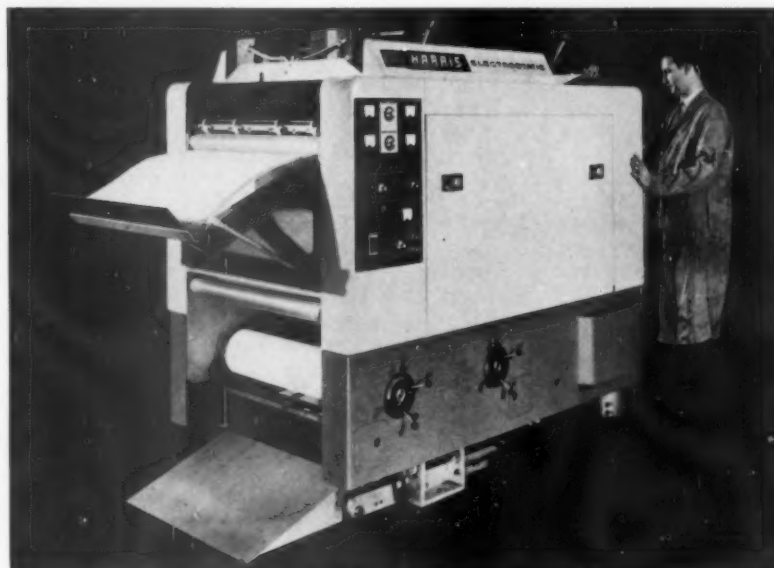
... NEW PRODUCTS

Electrostatic energy sensitizes special paper

CLEVELAND—A special printing machine that does not use conventional paper, ink or printing plates has been developed for the U.S.A. Army for use in its new automated system of map production, distribution, storage and display.

The new press will produce topographic maps almost instantly from 70 mm microfilm, eliminating preprinting and storage of maps that may be quickly outdated and extensive warehousing of drawings or printing plates.

The "Harris Electrostatic" printing press, developed by Harris-Intertype Corp., projects a light through the microfilm onto a moving roll of special paper that is made light-sensitive by electrostatic energy. The image created by the light is developed and "fixed" in the machine and the completed print is produced almost instantly. The process can print in black and white or in color and can reproduce type, line drawings and photographs. ■



ELECTROSTATIC PRINTING PRESS USES special paper which is sensitized and printed in one operation.

SatEvePost using non-glare uncoated papers

PHILADELPHIA—In what may well be a significant "reverse run play" in today's printing industry, Curtis Publishing Co., instead of shifting to a coated sheet, as had been expected, is now printing its new Saturday Evening Post on a non-glare uncoated sheet.

For years, The Post has been printed on an uncoated supercalendered sheet (supered on the machine), produced by New York and Pennsylvania Co., Inc., its subsidiary. Earlier this year, the talk was that the Post was switching to a blade coated sheet. However,

PULP & PAPER editors, in examining the revamped Post, have noticed that this was not the case.

A Post spokesman told PULP & PAPER that a special uncoated paper, called "S2-12" is being used. This it said is a combination of high gloss inks

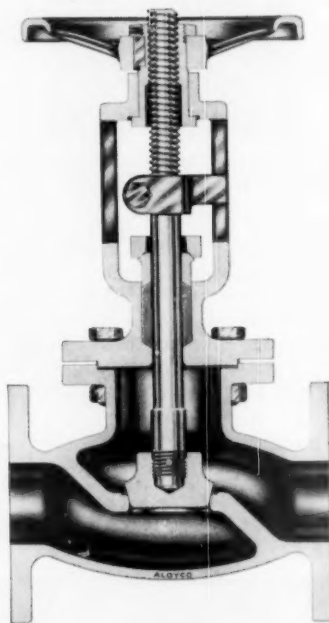


Fig. 311-B

Do you know the advantages of the new Aloyco Globe Valve design?

The design of 150 lb. globe valves of sizes 2" and larger features a non-rotating stem, non-rising handwheel with disc assembly pinned to the stem. This is accomplished by rotating the handwheel and yoke bushing assembly and preventing stem rotating by adding a stem key which fits into the bonnet yoke. The major advantages of the new design result in:

■ No spiral wear pattern on stem from hardened packing or hard deposit in stuffing box.

■ Rapid visual check of throttling control by observing location of stem stop.

■ No galling of back seat because of rotating stem.

■ No galling between seat and disc.

■ Stronger disc to stem connection.

■ No spinning of disc.

■ Less corrosion attack because of elimination of cavity between stem and disc.

These new design advantages are available in stainless steel and corrosion

resistant alloys in sizes 2" and up. For full information write for Bulletin #7, Alloy Steel Products Company, Inc., 1316 West Elizabeth Avenue, Linden, New Jersey.

O. 11



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...NEW PRODUCTS

to satisfy the advertisers and new papermaking processes. Some industry sources say this is a chemical addition to the sheet during the papermaking operation.

One coating authority says this technique may change some of the industry's thinking on coating. "When we speak of coating, we normally think of some mechanical technique to apply the coating to the surface of the sheet. After all, we are basically aiming to produce a good printing surface. How we do it really doesn't matter as long as we get the results we want. This is why there is some think-

ing concerning "reactive coating" or as some may call it, "inside coating."

Queried by PULP & PAPER, Curtis and New York and Penn officials will not go beyond saying at this time that they have developed a new printing process known as Deep Value Reproduction using materials and new techniques specially suited to recently developed high gloss inks.

"This combination of specially formulated papers and new inks prints with an eye-pleasing soft gloss and gives depth and realism to color reproduction by eliminating glare distractions," says a Curtis spokesman.

All four-color advertisements in the Post are now being printed by this Deep Value Reproduction process. Also production capacity of the newly formulated papers has been increased so that two-color black and white advertisements are being printed with the new papers and inks, he said.

Leon Marks, vice president and director of manufacturing for Curtis, says the new paper qualities resulted from research at New York and Penn.

Papermakers who have been making a dash for coating may now be scratching their heads and saying, "What now?" ■

....INDUSTRY GROWTH

Harmac expanding past 1,000 tpd mark

Company also considers diversification in bleached kraft grades

VANCOUVER—The stage is being set for early expansion of MacMillan, Bloedel & Powell River's mill at Harmac, on the east coast of Vancouver Island, to make it one of the world's largest producers of bleached kraft pulp.

Tentative plans are to increase capacity to more than 1,000 tpd. Present rated capacity is 700 tpd.

While declining to specify the proposed tonnage increase or to name the day when construction will start, Chairman J. V. Clyne told PULP & PAPER that the company is going ahead with site clearing operations during the winter months. Announcement of construction is expected early in 1962.

"We intend to keep our position

flexible in view of changing conditions," said Mr. Clyne. "The effect of the European Common Market on Canadian pulp production remains to be assessed. New pulps are coming on the world market all the time, some of them with new characteristics that make them especially acceptable. Right from the outset Harmac pulp has never lacked a buyer; Harmac quality is well established. All we need to do is make sure that we keep pace with the procession."

Mr. Clyne hinted that the company might move towards greater diversification of bleached kraft grades. Emphasis continues to be focused on quality control and research. Harmac pulp is now being sold in some 40 markets.

Engineering studies for the Harmac expansion are being carried out by H. A. Simons, Ltd., who also designed the original Harmac mill as well as the Port Alberni operation.

In addition to the Harmac project, M.B.&P.R. is spending \$7,000,000 at its Powell River newsprint mill. A new Bellingham (Sumner) barker has been installed there. The whole ground-wood distribution system is being revised. Centri-Cleaners are being installed on all machines and high-yield sulfite facilities are being improved.

The company's \$24,000,000 program at Port Alberni, involving erection of another newsprint machine, is on schedule. The machine will be in production early in 1963. ■

...NEWSPRINT CAPACITY

Newsprint capacity keeps outpacing demand

MONTREAL—The world will have plenty of newsprint for at least five more years, the Newsprint Association of Canada reports in its latest annual review of the supply situation.

The association expects continued increase in demand, but points out that expansion of capacity is keeping pace and the present 2,500,000-ton excess of capacity over demand is being maintained.

Capacity increase was greater in 1961 than in the boom year 1960, but there was not a corresponding increase in demand, the result being that the addition to "stand-by" capacity in 1961 has amounted to 575,000 tons, compared with a year previous when

excess capacity decreased by approximately the same volume.

The association looks for a substantial gain in world demand for newsprint in 1962, amounting to about 4%, or 572,000 tons. Capacity, however, will increase by nearly 5%, or 839,000 tons. Looking ahead to 1965, it is expected there will be no material change in existence of excess capacity.

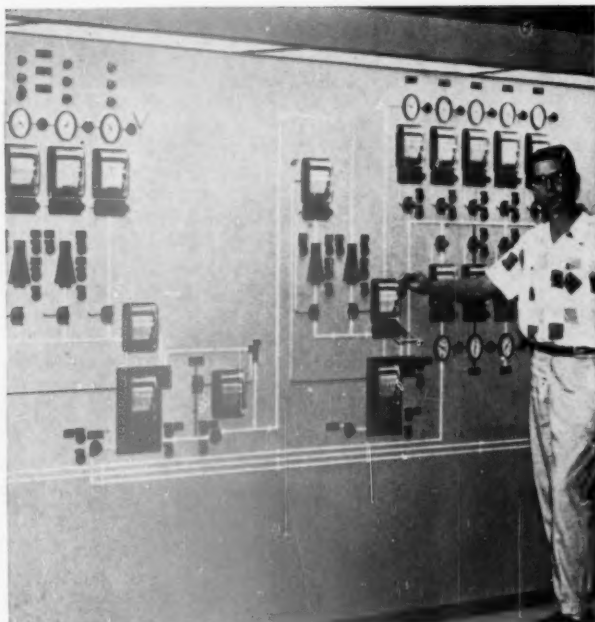
Despite the smaller total of newsprint consumed in Western Europe, the tonnage increase there has been greater than North America, both from 1951-55 and from 1956-60.

For the next five years, however, and until 1975 it is expected that the volume of expansion in North Amer-

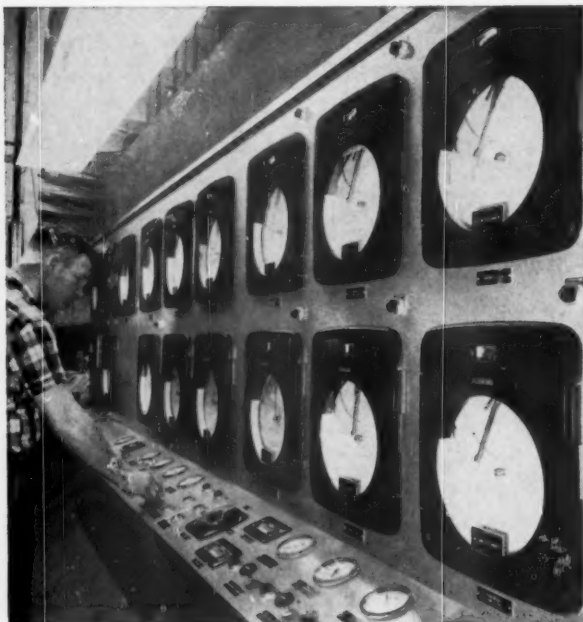
ica will again be greater.

During the past decade, more than half the total increase in world newsprint capacity has been in North America, but from 1956 to 1960 Western Europe added nearly 1,500,000 tons, compared with 2,500,000 tons in North America. In the current period 1961-65, Western Europe is expected to add 1,500,000 tons, compared with 630,000 tons in North America.

Canadian capacity will be increased by a further 700,000 tons as a result of continuous operation of mills in Eastern Canada. Until recently, only the mills in British Columbia and Newfoundland operated on a seven-day-a-week basis. ■

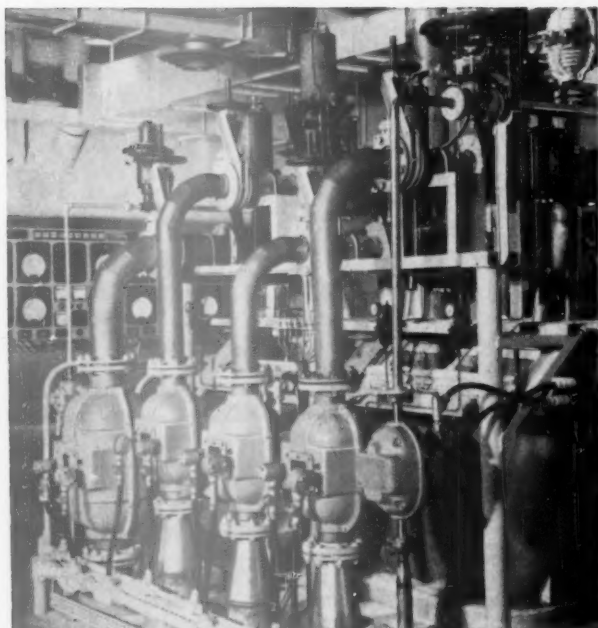


Operating personnel quickly learn system operation with the graphic panel techniques employed throughout the Foxboro Stock Blending Control System at Marathon Southern.



Grade changes are made easily on direct-reading dials at the control consoles of the Foxboro Stock Blending Control Systems at S. D. Warren Company.

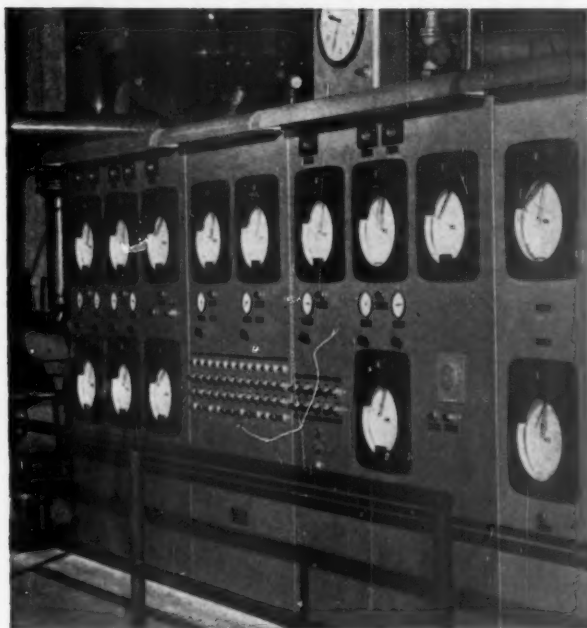
Why more than 60 Foxboro have been installed



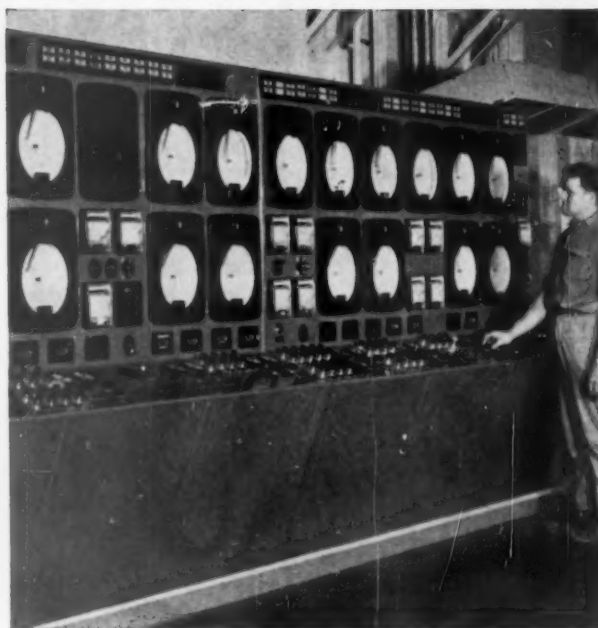
Accurate, trouble-free system stems from the precise, direct flow measurement provided by the reliable Foxboro Magnetic Flow Meter — the meter with no flow restrictions.

Major Foxboro Stock Blending Control Systems

Champion Papers Inc. Canton, North Carolina	Oxford Paper Company Rumford, Maine
Continental Can Company Augusta, Georgia	Riegel Paper Company Acme, North Carolina
Fraser Paper Limited Madawaska, Maine	Scott Paper Company Mobile, Alabama
International Paper Company Palmer, New York	S. D. Warren Company Muskegon, Michigan
Marathon Southern Corp. Naheola, Alabama	St. Croix Paper Company Woodland, Maine
Nekoosa-Edwards Paper Co. Port Edwards, Wisconsin	St. Regis Paper Company Sartell, Minnesota



Uniform product quality — that's what St. Regis Paper gets because its Foxboro Stock Blending Control System holds proportions constant, regardless of machine demand rate.



Saleable paper was turned out the first day Fraser Paper started its new No. 7 machine. Foxboro Electronic Conso-control* Instrumentation helped assure consistent furnish.

Stock Blending Control Systems in leading U. S. paper mills

"We raised our output of first quality paper 2 to 3 percent." — St. Regis Paper
"Reduced downtime between runs...improved product uniformity." — S. D. Warren

Newsprint, foodboard, printing grades, specialty papers — whatever the product — Foxboro Stock Blending Control Systems will give you higher quality and lower operating costs.

Foxboro Stock Blending Control Systems are engineered to meet your specific mill requirements — whether for a new machine or to eliminate need for batch beaters. The complete, integrated control center handles your whole job of stock proportioning — continuously and automatically. System design assures your operators of maximum

convenience, highest reliability, at lowest investment.

You can capitalize on The Foxboro Company's full breadth and depth of application system "know-how" — the result of more than 60 installations of Foxboro Stock Blending Control Systems in the United States alone.

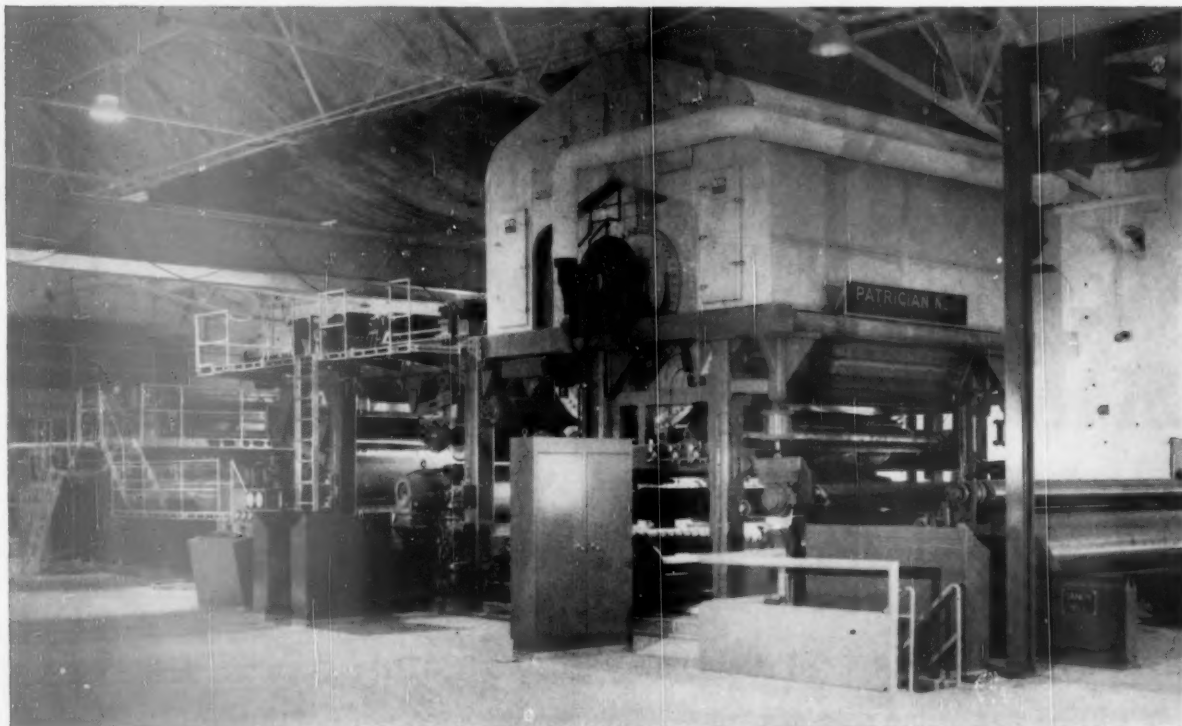
Increase your percentage of saleable paper. Reduce waste right from start-up. Ask your Foxboro Field Engineer for complete details on Foxboro Stock Blending Control Systems. The Foxboro Company, 9912 Neponset Avenue, Foxboro, Massachusetts.

**Reg. U.S. Pat. Off.*

FOXBORO

REG. U.S. PAT. OFF.

PATRICIAN'S SANDY HILL FOURDRINIER PRODUCES QUALITY TISSUE FROM STARTUP



Patrician's Yankee tissue machine, manufactured by Sandy Hill, incorporates modern ideas of engineering and design to produce fine tissue.

PRODUCES SALEABLE PAPER IMMEDIATELY

Patrician Paper Company, Inc. actually started paper production in the remarkably short time of one year after the company was organized. Despite the complexity of design and construction, the machine was delivered in nine months, exactly on schedule.

Patrician's Yankee tissue machine, engineered, built and installed by The Sandy Hill Iron and

Brass Works, turned out high grade tissue from the very beginning. Patrician is particularly pleased with the air cap headbox which contains special devices for controlling the pond level and the pond pressure.

Sandy Hill specializes in the manufacture of paper and pulp making machinery requiring the solution of complicated engineering, design and construction problems. Sandy Hill invites your inquiries.

WRITE TODAY FOR COMPLETE INFORMATION



THE

SANDY HILL

IRON AND BRASS WORKS

HUDSON FALLS, N. Y.

Damage reduces output of Longview Fibre

LONGVIEW, WASH.—Two explosions, one following the other, extensively damaged the largest of three recovery boilers at Longview Fibre Co., Longview, Wash. early in December. Rebuilding cost and use loss were initially estimated at \$500,000. No workmen were killed or seriously injured.

This recovery furnace, installed in late 1957 as the industry's largest, has black liquor capacity for 700 tons of pulp per day. Plant output will be reduced to 75-85 percent of normal while the unit is being rebuilt, a period which is estimated to last at least two months.

Although exact causes of the blasts were not yet determined, R. P. Wollenberg, executive vice pres., reported that a boiler tube apparently ruptured, releasing steam and water in the furnace. Despite corrective measures a major explosion followed, "apparently in the firebox," he said. ■

Canada's problem: find profitable markets

VANCOUVER—Marketing and merchandising will be emphasized in 1962 as far as the Canadian industry is concerned. This is what Robert M. Fowler, president of the Canadian Pulp & Paper Assn. told PULP & PAPER here, during attendance at a meeting of the association's executive board.

Mr. Fowler, discussing the coming year's prospects, was spokesman for a group of top executives of Canadian companies. "Overall, the industry is operating only about mid-80% capacity, so our immediate problem is certainly not increased production," he said. "The problem is to find a profitable market for the output we have, and I am satisfied that individual companies are doing an effective job in extending their sales.

"I am not at all anxious over the industry's expansion and the current surplus capacity. Some might consider that there has been overexpansion in kraft pulp and if our concern were to have a nice, tidy balance between

supply and demand we probably would have to admit that we had more production than immediately needed. But experience indicates this excess production over consumption will not continue long."

Mr. Fowler welcomes Britain's expected entry into the EEC, even though for the short term Canada might lose some business in the U.K. This year, the U.K. is buying some 900,000 tons of pulp and paper from Canada and paying about \$110,000,000 for it.

Mr. Fowler sees widespread benefits from the Common Market resulting from encouragement of multi-lateral trade and a possible liberalization of U.S. trade policies.

"We could talk all night about the possible effects of the suggested North American Common Market," he said. "Such a program could have disadvantages and advantages both ways. It would certainly create drastic readjustments in Canada's fine paper in-

dustry."

Among those at the Vancouver sessions from the East were Lucien G. Rolland, pres. and gen. mgr., Rolland Paper Mills, who is also chairman of the CPPA executive board; W. H. Palm, pres. Hinde & Dauch; F. S. Seaborne, pres., Kimberly-Clark Canada; G. L. Carruthers, vice pres. and gen. mgr., Interlake Tissue Mills; Maxwell W. Mackenzie, pres., Chemcell, Ltd.; P. M. Fox, pres., St. Lawrence Corp., and chairman of the board, Great Lakes Paper Co.; C. M. Fellows, vice pres., St. Lawrence Corp.; K. W. Matheson, vice pres., Fraser Cos. Ltd.; E. B. Hinman, pres., Canadian International Paper Co.; P. E. Roberts, exec. vice pres., production, Abitibi Power & Paper Co.; F. A. Harrison, vice pres., woodlands, Canadian International Paper Co.; T. F. Flahiff, vice pres. Quebec North Shore Paper Co. and the Ontario Paper Co. In addition, executives of the major B.C. companies were present. ■

Research vital to this industry—Annis

NEW YORK—This industry must support basic research, to assure the industry's continued growth, even though this "yields no important gains," said Harold M. Annis, TAPPI president, at the Dec. 12 meeting of Metropolitan TAPPI.

He devoted his entire talk to recording the gains and opportunities for research in his travels both in the United States and abroad. This industry has frequently been criticized for being both a laggard and too pinch-penny in the field of research by many of its own leaders.

Mr. Annis, who is vice president,

research and development, for Oxford Paper Co., and who is expected to begin his second year as TAPPI president in February, said a recent APPA-TAPPI meeting in Mobile, Ala., for coordination of research and education, brought together pulp and paper research leaders and key university scientists in the hope that the latter group "would better understand our problems and undertake research of our problems."

He quoted Dr. Neil McLeod of the Institute of Paper Chemistry as saying a few months earlier that research and not population growth will build this

industry and "education and research are prudent partners in this difficult and untried" field. He lauded the new Institute \$125,000 per year pioneering research program financed by 24 companies and foundations.

Important new laboratories have been built this year by St. Regis, Scott and Mead paper companies and Beloit Iron Works to develop new products and said the industry would suffer "attrition of time and aggressive competition" if more such investments are not made.

The Oxford University (England)

RESEARCH

Research Symposium on Fundamental Structure and Formation of Paper, which he attended, "was most appropriate," he said. Progress in many problems hinge upon these basic studies, including high speed coating, he said.

Research in Finland, he said, is directed toward pulping problems, including viscose. Its Central Institute employs 180, spends \$800,000 a year. In France and England he found careful attention to properties of purchased pulps and refining for optimum paper properties."

Fluid mechanics research reports at TAPPI's Engineering conference this year, he said, are vital to greater machine speeds and the re-

sults "will carry across our entire structure."

It is vital, Mr. Annis stated, to make many grades at high speeds, with better control of formation, spread, basis weight profile, caliper profile, and moisture profile, all directed toward making more uniform products under more favorable economic conditions."

At recent Web Offset Conference, he said it was encouraging to find ink, press, offset blanket, drying oven and paper technicians "coordinating their efforts." At the blanket to blanket nip on web offset presses, we bring them all together for the first time and we need an understanding of the interrelation of what happens at this instant.

He praised the recent F. C. Huyck

Co.'s Paper Research Executives' Conference for demonstrating the value of supplier-industry cooperation and bringing together "our best judgment as to future paper clothing requirements."

Mr. Annis urged TAPPI members to be interested in worldwide marketing developments and problems "as they have a direct bearing on us and our companies" and he quoted from PULP & PAPER magazine's report of the remarks by Benton R. Cancell, executive vice president of St. Regis on "a market-oriented approach (by industry engineers and technicians) in the sluggish 60's." He endorsed Mr. Cancell's thesis and references to both domestic and international competition. ■

SAFETY

Three awards highlight Chicago meeting

Pulp and paper section discusses equipment, elects officers

CHICAGO—Over 250 pulp and paper, paper converting and logging supervisors active in industrial safety work were among the 13,000 delegates who swarmed into the Loop hotels of Chicago for the 1961 annual National Safety Congress.

The Pulp & Paper Section of the Congress drew upon technical people in mill operations for discussions of equipment and their built-in safety factors. Precautions which are essential in use of radioisotopes in industry were explained by E. J. Amberg, Industrial Nucleonics Corp. An IBM safety manager, Russell DeReamer, told how supervisors can improve

safety practices. Fire fighting tactics in forests were demonstrated colorfully by Canada's Max "Smokey" Baxter.

O. A. Laakso, president of Kamyr, Inc., Hudson Falls, N.Y., the American branch of the Scandinavian company, explained the safety features which have been built into their continuous digester. Some of these include extra shell thickness as a corrosion allowance over and above code requirements, stainless cladding of the bottom and top head of the digester as precautions against corrosion, provisions to isolate the digester from feeding and discharge system by closing three valves; special piping and special safety

switches.

David W. Hill, The Mead Corp., Kingsport, Tenn., chairmanned this section. Elected to succeed him for next year was Vincent P. Coulon, safety director, Sealright-Oswego Falls Corp., Fulton, N.Y. Other new 1961-2 officers elected: Robert J. Gell, staff assistant, paper mills division, Eastman Kodak Co., Rochester, N.Y., to be vice chairman and program chairman; Robert M. Gilmore, general safety supervisor, Rayonier Inc., headquarters at Hoquiam, Wash., to be vice chairman and newsletter editor; and Merlin C. Race, director of safety, St. Regis Paper Co., New York, to be



DRAPER **MIDDLETON**
Consolidated of Canada, via Mr. Draper, captures Scott Paper Co.'s company-wide cup for third time.



HAZARD **DOWD**
For U. S. Gypsum, South Gate, Calif., Mr. Hazard accepts individual mill's Fritz Memorial trophy.



MONTGOMERY **BRAUN**
For Mr. Braun of Employers Mutual of Wausau—the Congress's highest individual citation.

secretary.

Francis H. Wagner, director of safety, The Mead Corp., Chillicothe, O., and a former chairman, was elected to be chairman of the regional representatives for the eight U.S.-Canadian regions. These were Arthur Carle, Northwest Paper, Lake States; Harry Hahn, Hammermill Paper, Middle Atlantic; Dallas Henry, Continental Can, Hodge, La., Southern; Don Adair, Pacific Coast Assn. of Pulp and Paper Mfrs., Pacific; A. E. Minor, Ontario-Minnesota P & P, Canada; Earl Ripsa, Container Corp. of America, Midwest; H. E. Newbury, Ecusta Paper, Central; and Orbbie Webber, St. Regis, East Pepperell, Mass., New England.

A feature event

was the presentation of a "Citation for Distinguished Service to Safety," made to Fred W. Braun, vice president, loss prevention, Employers Mutuals of Wausau, Wausau, Wis. Mr. Braun has served for 30 years as member of

either the Pulp and Paper or the Wood Products Sections' executive committees in the Congress. This is the highest award the National Safety Council offers an individual, and in this case it was sponsored by the Pulp and Paper Section.

The Scott Paper Co.'s Arthur Hoyt Scott cup was won for the third time by Consolidated Paper Corp. of Montreal. This is for the best company-wide or corporation-wide safety achievement on the basis of National Safety Council records. Julius Draper, corporate safety director of Consolidated, received the award from Baker Middleton, manager of personnel services of Scott Paper Co., who substituted for Claire Lyon, deceased. Consolidated now takes permanent possession of the cup. Consistent safety efforts and results are required to win. Consolidated's frequency rate increased from 1.50 to 2.37 in 1960, over 1959, but it was first both years and was also first in 1954 with 2.32.

This award was principal event at the Wood Products Section luncheon where Chester Lauck, "Lum" of "Lum and Abner" radio shows, entertained and ended up with a serious discussion of the human side of accident prevention.

The Edward Benton Fritz Memorial Trophy went to the United States Gypsum Co., South Gate, Calif., for the best individual pulp and paper mill record in Division I (larger mills) of the Safety Council's competition.

Another safety development

came along shortly after the Chicago conference. This was the presentation of the American Paper & Pulp Association's one million man hour safety award to the Munsing, Mich., mill of Kimberly-Clark Corp. It has 570 employees and, in December, still had no lost-time accidents this year and only three in the last 34 months. It makes paper, recently shutting down its sulfate mill. ■

... PULPWOOD MANAGEMENT

Canadian group seeks better government support

Conference also studies integration of forest fire fighting

By CHARLES L. SHAW, Canadian Editorial Director

MONTREAL — First fruit of October's unprecedented Resources for Tomorrow Conference was to be harvested here in December when the steering committee named to establish guidelines for future action got down to business.

All Canadian provinces were to be represented at this committee meeting and discussion was to be based on a 46-page confidential report outlining some of the basic views expressed at the October conference, not only in the field of forest operations, but all other major natural resources.

PULP & PAPER learned that some of the proposals to receive attention would be:

1. Integration of forest protective agencies to prevent forest fires and wood losses due to disease and insect infestation.
2. A more co-operative government attitude to make the forest industry more profitable and more attractive to investment of outside capital, especially from overseas countries such as West Germany.
3. Recognition that Canada's forest resources are not inexhaustible and that many other countries, such as in Africa, represent growing competition.
4. A more realistic approach to in-

ternational trading, tariffs, etc., and a reduction in Canadian tariff protection, especially in countries that are important potential or actual buyers of Canadian forest products, such as Japan, where, for instance, rising population and living standards have led to increased demand.

At the original conference federal forest protection policy was criticized as inadequate, not only respecting financing but in provision of personnel. Ottawa's offer of the employment of troops to combat major forest fires was regarded as useless because troops would not be available during the summer months because of military training.

The problem in fighting fires in Canadian forests, according to delegates, was not so much the supply of manpower but of building access roads to facilitate transport of fire-fighting equipment and of providing more effective facilities such as water bombers, helicopters and other equipment for fire-fighting.

The Resources for Tomorrow Conference drew 700 delegates from all parts of Canada. While industry was represented, most of the participants were government officials and university authorities.

Out of the sessions developed a strong feeling in favor of improved communications among government and industry and the general public. This was based on a conviction that government must depend on the authoritative voice of industry in establishing policies affecting industry, and that a government can move boldly and imaginatively only when its program is understood and favored by a large section of the people.

Delegates said a co-ordinating body should be appointed embracing representatives from all Canada and all the basic resources to continue activity in the fields covered at Montreal and to prepare groundwork for another nation-wide conference, perhaps not as large and unwieldy as the recent one in Montreal, within two or three years.

"The idea of the conference was a good one and we shouldn't let it die," remarked one of the forest industry delegates at the conclusion of the session. "We couldn't expect the conference to come up with many positive achievements or even definite recommendations. After all, we were simply breaking new ground. But we also set a firm foundation for future action along more specific lines." ■



Let TITANOX-A-CG

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The eagerly awaited catalog can be a star salesman, especially when well known TITANOX titanium dioxide pigment has boosted the brightness and opacity of its pages while keeping weight down. And for outstanding pages that require coated stock there is new TITANOX-A-CG.

TITANOX-A-CG is the coating grade anatase titanium dioxide pigment so well suited to the high solids, high speed coatings applied by all modern coating methods including the trailing blade coater. This pigment is equally suitable to other processes

such as size press and calender application.

In addition to high whiteness, brightness and opacity, TITANOX-A-CG readily yields high gloss. This pigment is ideal for the fast, continuous production of paper surfaces of uninterrupted smoothness.

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TITANIUM PIGMENT CORPORATION
SUBSIDIARY OF NATIONAL LEAD COMPANY



Hardenbrook heads National Mfrs.

NEW YORK—A leader in the paper industry, Donald Johnson Hardenbrook, vice president and director of Union Bag-Camp Paper Corp. and its predecessor, Union Bag & Paper Corp., has again been signally honored by election to the presidency of the National Association of Manufacturers for 1962.

Cola G. Parker, former president of Kimberly-Clark Corp., and former president of APPA, was president of NAM in 1956. He was succeeded by E. G. Swigert, chairman of Hyster Co. and vice president of Electric Steel Foundry Co., who is so well known to pulp and paper industry leaders in the West that this industry can almost claim him, too.

Mr. Hardenbrook has the distinc-

tion of taking over the top post at a meeting which will long be debated and discussed because of the dramatic personal appeal by President Kennedy for tariff bargaining powers.

Born in Jamaica, Long Island, Feb. 10, 1896, Mr. Hardenbrook was a four-sport athlete at Brooklyn Polytech and started his business career in a cement company, but quickly became its assistant advertising manager. World War I service interrupted this work, and he became executive officer of a squadron of submarine chasers.

He was in banking and investments until joining Union Bag's executive staff in 1943. He has been a vice president for 15 years and is board chairman of its subsidiary, American



HARDENBROOK

Creosoting Corp. He is married to the former actress, Helen Vinson, and he has two married daughters by a previous marriage. ■

I.P.'s "Mr. Water" takes on broader duties

NEW YORK—A man who probably has explored more rivers and waterways in North America in search of favorable mill site than anyone else, by car or afoot, is appointed industrial engineer for the entire International Paper Co. He is Harlan D. Shope, whose previous position was construction and industrial engineer for the Southern Kraft Division, although actually he went far afield on I.P. projects—in recent years in scouting for suitable sites in Oregon and Washington.

George T. Ward, vice president in charge of manufacturing, announced that Mr. Shope would be responsible for overall company activities relating to new plant location, water

supply and waste disposal, with New York headquarters.

A graduate of the University of Arkansas in Civil Engineering, Mr. Shope was first employed by the Cotton Belt Railroad in making special surveys for plant locations. He joined International Paper in 1927 as a field engineer at Camden, Ark., and since that time has assisted in the location and construction of seven of the company's Southern mills.

During the past 25 years he has been active in the fields of plant locations, water supply, waste disposal.

He is a member of the American Water Works Association and for a number of years while he was stationed at the company's southern



SHOPE

headquarters in Mobile, Alabama, he was a member of the Alabama Water Pollution Control Commission. ■

Reese's activities broadened at Nepco

PORT EDWARDS, WIS.—Charles H. Reese, formerly vice president of manufacturing for Nekoosa-Edwards Paper Co., has been appointed vice president of the company. His duties are greatly broadened; he will act as adviser to the president and general manager, the executive vice president, and the manager of the engineering and power department.

Charles M. Sigvardt, manager of manufacturing operations, will assume the day to day manufacturing responsibilities previously discharged by Mr. Reese, reporting to S. A. Casey, the executive vice president.

Frank Coldwell, manager of engineering and power, who has previously

reported to Mr. Reese, will also report to Mr. Casey.

"This realignment of manufacturing responsibility," said John E. Alexander, president and general manager, "will release Mr. Reese from everyday details of operation to concentrate on all corporate activity with respect to planning for major facilities, such as major changes in pulping, new power facilities, new paper machines, and major alterations of finishing, warehousing, and shipping.

The new No. 2 machine at Nekoosa is named "Charles H. Reese." He is a former national president of PIMA when it was the Superintendents' Assn. ■



REESE

PEOPLE . . . continued on p. 44

Valve converts digester to power controls

SEATTLE, WASH.—The huge valve shown here is replacing conventional covers on some stationary digesters. Once in place, it converts the digester to power opening-closing, eliminating the laborious effort normally associated with digester charging. The capping valve can be either hydraulically, air or electrically operated and when used in conjunction with feeding systems delivering chips directly to each digester, the valve can facilitate charging the digesters with chips by remote or instrument control.

Power capping valves reduce the amount of manpower needed in the digester room.

These capping valves are said to make a positive seal with the digester top, are leak-free at both gland and gate. Although designed primarily for kraft pulping, this non-leak feature, says the manufacturer, makes them applicable for stationary digesters regardless of pulping process. The valve units can be quickly installed, have been put into place and secured without missing a cook.

The supplier is Hilton Products Co., P.O. Box 3923, Seattle, Wash.



Strapping tool

... combines stretcher-sealer



Applications: For heavy-duty steel strapping of skids, rolls and cartons.

Features: By combining two tools into one manually handy unit, manufacturer says it is possible to strap faster and easier than with separate stretcher and sealer. Strap is fed directly from a coil instead of using cut-to-length strapping, resulting in savings of about 10% in strap cost through eliminating waste. After inserting strap and positioning the seal, unit automatically tensions, seals and shears the strap. Unit can be incorporated into existing installations.

Supplier: Acme Steel Co., Acme Steel Products Div., 135th St. and Perry Ave., Chicago 27, Ill.

Chain conveyor

... is casehardened

Applications: For conveying materials with high abrasion and corrosion properties.

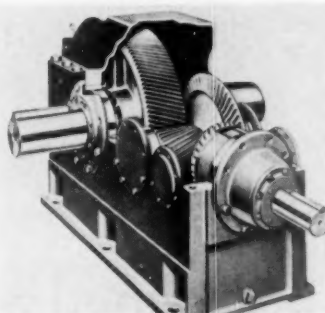
Advantages: The manufacturer's "Armor Case" is a new, induction casehardening technique which helps

control abrasion sliding wear by increasing hardness of wearing edges of chain conveyor sidebars and back links. Process also reduces corrosion of pins and rivets.

Supplier: Chain Belt Co., Milwaukee 1, Wis.

Horizontal speed reducers

... in two new series



Applications: For parallel shaft and right angle installations.

Features: The parallel shaft, type Y, with ratios 1.84 through 292 to 1 and right angle, type YB, with ratios 5.06 through 1207 to 1 have capacity ranges from 9,000 lb. to 1,570,000 lb. in. torque. Gears are single helical (98% efficiency per gear mesh under full load, says the manufacturer), with precision cut extra-depth high pressure-angle tooth form for greater capacity and increased strength.

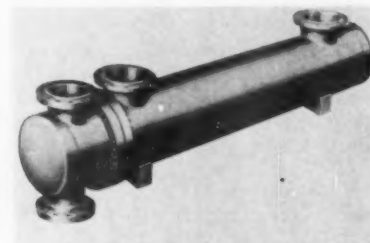
Heavy duty double ended shafts can be turned 180° for double gear life, and have large diameters to accommodate maximum torque and overhung loads. Rugged housings have smooth flat surfaces for simple

mounting of motor brackets, backstops, brakes and other modifications.

Supplier: The Falk Corp., Box 492, Milwaukee 1, Wis.

Heat exchangers

... have removable bundles



Applications: General industrial use.

Features: The new C-400 series heat exchangers feature removable bundle, pull-through, bolted floated head design, and meet a wide range of pressures, construction and material variations.

The floating head cover is bolted directly to the floating tubesheet which enables the bundle to be pulled from the shell without first removing the shell and floating head covers. Thus, says the manufacturer, if frequent cleaning of the bundle is necessary, maintenance costs are substantially reduced.

Specifications: Units are available in 18 shell size diameters ranging from 8 in. through 42 in. with any practical tube length. Two, four and six tube pass arrangements are standard. Shellside and tubeside design pressures are 75, 150 and 300 psi.

Supplier: American Standard Industrial Div., Detroit 32, Mich.

MEETINGS

... January

Pacific TAPPI, Engineering Conference, Bellingham, Wash.—Jan. 16.
 American Pulpwood Assn., Lake State Technical Committee, International Falls, Minn.—Jan. 16-17.
 Southern Pulpwood Conservation Assn., annual meeting, Atlanta, Ga.—Jan. 16-17.
 Empire State TAPPI, Eastern Dist., "Air Systems," Queensbury Hotel, Glens Falls, N. Y.—Jan. 18.
 Michigan Div., PIMA-TAPPI, annual papermakers get-together, Hotel Harris, Kalamazoo, Mich.—Jan. 18.
 Forest Industries Council, Chandler, Ariz.—Jan. 22-23.
 Yale School of Forestry 18th Industrial Forestry Seminar, New Haven, Conn.—Jan. 22-26.
 Miami Valley Div., PIMA, joint meeting with Graphic Arts Assn., Carrousel Motel, Cincinnati, Ohio—Jan. 23.
 Canadian Pulp and Paper Assn., technical section, annual meeting, Queen Elizabeth Hotel, Montreal—Jan. 23-26.

... February

Empire State Section TAPPI, Plastics in the Paper Industry, Crown & Anchor Restaurant, Niagara Falls, N. Y.—Feb. 7.
 Ohio TAPPI, Computer Control, Manchester Hotel, Middletown, O.—Feb. 8.
 Southwestern Div. PIMA, Container Corp. of America & Royal Container Corp., Santa Clara, Calif.—Feb. 9.
 Paper Week: TAPPI, Commodore Hotel; APPA, Waldorf Hotel; APA, Roosevelt Hotel, New York—Feb. 18-22.

... March

Metropolitan TAPPI, "Problems for research," Stouffer's, New York N. Y.—Mar. 13.
 Michigan Div., PIMA, Inman's Restaurant, Galesburg, Mich.—Mar. 15.
 Pacific TAPPI, Shibley Award meeting, Camas, Wash.—Mar. 20.
 Virginia-Carolina TAPPI, John Marshall Hotel, Richmond, Va.—Mar. 23.
 Gulf Coast TAPPI, San Carlos Hotel, Pensacola, Fla.—Mar. 23-24.
 Miami Valley Div., PIMA, Manchester Hotel, Middletown, Ohio—Mar. 27.

... April

Pacific Coast branch, Technical Section, Canadian Pulp & Paper Assn., annual spring meeting, Harrison Hot Springs, B. C.—Apr. 25-29.

... May

TAPPI, 13th Coating Conference, Netherland-Hilton Hotel, Cincinnati, Ohio—May 14-16.

... June

PIMA, National Meeting, Statler Hilton Hotel, Buffalo, N. Y.—June 5-7.

THE SURPRISING ECONOMICS OF BONDSTRAND

... the pipe designed for corrosive chemicals



A 20' length of 12" Bondstrand pipe weighs only 134 pounds.



Bondstrand is cut with ordinary hacksaw. Preheating not required.



Only one man required to apply adhesive and position a 90° Bondstrand elbow. It aligns itself.

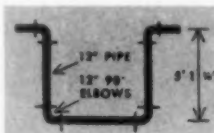


One man with a hammer and a two-by-four makes the Bondstrand Quick-Lock joint in a matter of seconds.

BONDSTRAND, the fiber glass reinforced plastic pipe, handles nearly every corrosive solution—acids, salts, alkalis—used in industry today. It will withstand pressures up to 550 psi and temperatures up to 300° F. So will the complete line of BONDSTRAND fittings, 2" through 12".

The smooth, abrasion-resistant inner surface permanently retains its excellent flow characteristics (Hazen-Williams formula $C=150$) and thus often permits use of one-size-smaller diameter pipe. BONDSTRAND is only one-eighth the weight of steel and because it resists exterior as well as interior corrosion it does not require continual maintenance painting.

BONDSTRAND versatility is unmatched by any other pipe—metallic, thermoplastic, glass or lined. What does this superiority cost? Less than you may suspect. Here is how BONDSTRAND compares with stainless steel in this simple pipe layout:



TOTAL COST OF MATERIAL AND LABOR

12" Type 316 Stainless Steel 12 Gauge Pipe With Elbows.....	\$1509.28
12" Series 4000 Bondstrand Pipe With Bondstrand Elbows.....	\$ 590.80

Figures shown are from a strict time-and-cost study conducted by one of Southern California's leading independent piping and engineering firms.

This means that in this layout, you get all the advantages of BONDSTRAND for \$918.48 less than you would pay for 12 gauge stainless.

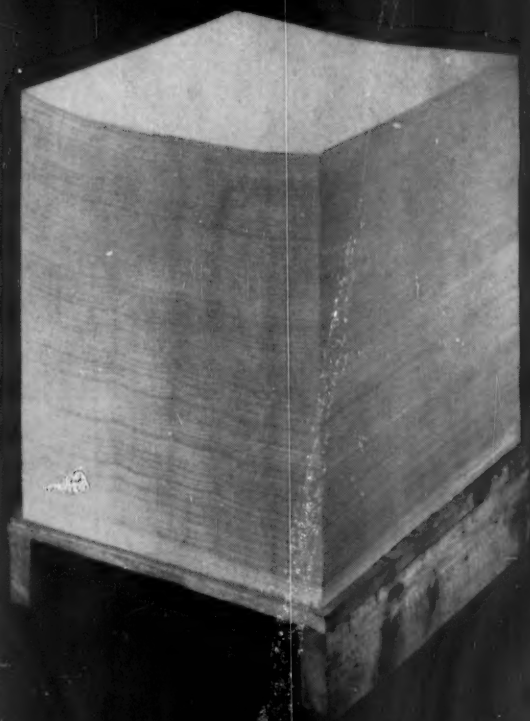
To evaluate the superiority of BONDSTRAND pipe for your specific requirements, write for complete technical data.

Dept. FY, 4809 Firestone Blvd., South Gate, California



921 Pitner Ave. Evanston, Ill. 360 Carnegie Ave. Kenilworth, N.J. 111 Colgate Ave. Buffalo, N.Y. 2404 Dennis St. Jacksonville, Fla. 6801 Silsbee St. Houston, Tex.

Want more production?



Announcing the Langston-Masson Sheet Cutter...

This is the cutter that gives you more positive control over your paper—especially at the three vital points: around the knife, at the overlapping station, and at the discharge. As a result, the Langston-Masson Sheet Cutter can be operated at higher speeds, and sheets can be laid evenly in smooth-sided stacks.

Calibrated sheet length indicator

Easy setup boosts productivity further. Adjustments are on the drive side, easy to reach and set. Instead of having to cut

and try to get right sheet length, you simply refer to the calibrated sheet length indicator. This not only saves time, it reduces waste.

No trimming

Langston-patented precision shear-type slitters are standard on this machine. They are guaranteed to run true within .001 in., thus minimizing variations in sheet width. Also they keep paper dust to a minimum. The combination of true slitting, accurate cutting, and precision

laying provided by this machine means that in many cases you can ship the paper as it is taken from the stack. Trimming is normally not necessary. Even where it is, trim allowances can be kept to a minimum. Again, this means less waste of paper and less handling cost per order.

Proven design

The Langston-Masson Sheet Cutter is being made by Langston under a license agreement with Masson-Scott, Ltd., of England. Paper mills in Canada and

Get a Langston-Masson Sheet Cutter



turns out more paper per hour, reduces waste

throughout the world are using the machine now and testify to the high merits of its design. Langston has incorporated several additional engineering changes as required for operation in North America.

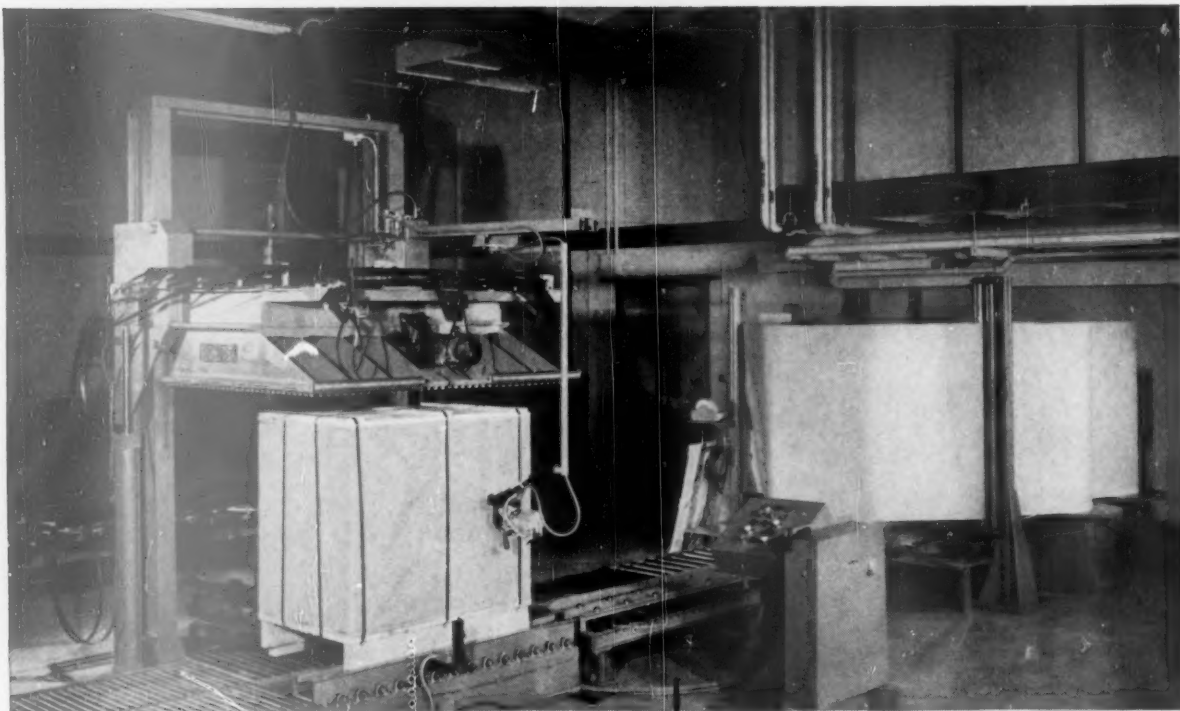
Let us give you complete information on the Langston-Masson Sheet Cutter. Discover how much more you can produce in the same time and floor space, and how much you can reduce waste. Write Samuel M. Langston Co., 6th & Jefferson Sts., Camden 4, N.J.

Langston

LEADERSHIP . . . BY DESIGN



Two men wrap and strap a skid of paper in 5 minutes!



As this skid moves into the compression strapping station, the lengthwise straps drape around the load. The skid automatically stops in position in the press so that saber chutes can extend through notches in the skid runners. Then one, three, or five girth straps can be power fed to the operator, who completes the compression strapping operation while the other man prepares the wrapping station for the next cycle.

A skid load of paper drapes itself with protective paper as it moves along the conveyor. The wrapper is held across the conveyor by a pneumatic clamp on the far side, and feeds from rolls through a guide on the near side. Then the skid is stopped. Two men complete the wrapping operation. Total time: about two minutes.

New Signode skid packaging station

- ...pre-drapes protective paper**
- ...pre-drapes longitudinal straps**
- ...feeds girth straps through notches in skid runners**

Now production line packaging of skids of paper is a reality—a fast, smooth-flowing operation of which many parts are automatic. The entire job takes about five minutes with two men.

If this seems to mean that you can now put about 90 skids of paper through your strapping machine in 16 man-hours, you're right. What's more, your Signode man can be there in a hurry to tell you more about it. Call him, or write to Signode, today.

Let us show you our new 20 minute 16mm color movie on compression strapping in the paper industry.



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GUIDE *for paper and paperboard coating*

COMPLETE LIST OF GRADES AND APPLICATIONS



SPECIFY THE PROPER GRADE

	GRADE	CHEMICAL AND PHYSICAL CHARACTERISTICS
ZOPAQUE® R-55	Rutile	Refractive index 2.76 Brightness (%) 94 Particle size, mode diameter (microns) 0.25 Residue (325 mesh, max. %) 0.01 Moisture (max. %) 0.5
ZOPAQUE® LD-C	Anatase (Coating Grade)	Refractive index 2.52 Brightness (%) 96 Particle size, mode diameter (microns) 0.21 Residue (325 mesh, max. %) 0.01 Moisture (max. %) 0.5
ZOPAQUE® RG	Anatase (Beater Grade)	Refractive index 2.52 Brightness (%) 96 Particle size, mode diameter (microns) 0.18 Residue (325 mesh, max. %) 0.15 Moisture (max. %) 0.5



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FOR YOUR APPLICATION

RECOMMENDED USES

COATING paper and paperboard, particularly waxing grades . . . on or off-machine methods with all types of coaters.

COATING paper and paperboard by on or off-machine methods . . . all types of coaters including size press.

BEATER ADDITION in all types of paper and paperboard . . . on fourdrinier and cylinder machines . . . add dry at beater or in slurry form at fan pump or head box.

ADVANTAGES

MAXIMUM WAXED OPACITY
and HIDING POWER

LOW VISCOSITY permitting
high solids coating colors

EASE OF DISPERSION

LOW VISCOSITY permitting
high solids coating colors

EASE OF DISPERSION

HIGH BRIGHTNESS with
blue-white color

HIGH EFFICIENCY FILLER

HIGH BRIGHTNESS
blue-white color

WATER DISPERSIBLE

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Services of the laboratories are available to any present or prospective customers for practical research and development work on any mill project related to pigments or chemical additives used in papermaking or coating.

Paper Research and Development Laboratory facilities center about the four basic areas shown below:

Complete hand-sheet making facilities



Constant Temperature and Humidity Room



Coating preparation and rheology section



Instrumentation and analytical service laboratories





TOP-SECRET CHEMICAL

SUCCESSFULLY DEINKS

OLD NEWSPAPERS

FROM WHICH ...

Garden State Makes News

By **PETER INSERRA**, Assistant Editor, and **MAURICE R. CASTAGNE**, Associate Editor

EVERY TWO WEEKS, on schedule, a bulky switch engine slowly pushes an unmarked tank car down a quiet siding at Garfield, N.J. Where the tracks end, hoses are hooked into the big, black tanker, and a chemical it took 11 years to perfect begins flowing through pipelines into the Garden State Paper Co.

The chemical, essential to the mill's unique pulp preparation system, is being used to de-ink old newspapers from which Garden State is making commercially acceptable newsprint, currently at the rate of 100 tpd. Production costs, says Garden State management, are less than those of conventional methods.

The mill is ideally located near major arteries which feed New York City, one of the world's major newsprint consumers, only 10 miles away.

Since start-up, Oct. 20, Garden State has been gradually attaining standard newsprint production. If present

successes continue, then uses of the de-inking process could spread well beyond the newsprint field. The mill was planned for just such expansion. Specialty grades could be produced from deinked newsprint. Provisions have been made for bleaching, although this stage is bypassed in Garden State newsprint production.

Once start-up problems even out and standard newsprint production is achieved, Garden State management says other plants might be a possibility.

Principal investor in the mill is the *Newark (N.J.) Evening News*, a daily newspaper with a circulation of about 300,000 (Sunday edition 400,000). The *News*, which uses 55,000 tons of newsprint annually, will use about 10% of the mill's production.

Pioneer of the deinking process is Richard B. Scudder, *Newark News* publisher and president of the Garden State Paper Co. Credit for development of the chemical which

makes the whole process possible goes to Robert H. Illingworth, vice president of Garden State and chief engineer for the *News*.

John H. Rich is general manager of the new mill. He brought with him to Garden State 20 years background in coating and deinking processes. Prior to joining the Garden State project, he was with Riegel Paper Corp. for 11 years. Before that he was assistant plant manager at Newton Falls Paper Mill, Newton Falls, N.Y.

Other key members of the Garden State staff are Don Finnegan, paper machine superintendent; Jim Raymond, plant engineer; and Clyde Benson, technical superintendent. Ralph Fay is office manager.

Roderick O'Donoghue, consulting engineers, N.Y., designed the mill. Everett Mahannah was the project engineer. The engineering company had experience in designing deinking facilities back in the early Twenties.

Many systems for deinking newsprint have been tried throughout the years. At best, says one observer, these systems have been only partially successful, because quality deinking and economy of operation were at odds. On such a shaky foundation, skeptics said, a mill like Garden State could not be built. Even after start-up, skepticism still was heard. The question now is: What are the operating results of Garden State newsprint?

To help answer this question, PULP & PAPER went into press-rooms, where the sheet is in use or where it had been run recently, and interviewed the pressmen.

At one daily New York City newspaper, pressmen said operating results were good. Their only criticism was that color should be brighter. Halftones reproduce well, they said.

Newark News pressmen, despite allegiance to the mill's parent company, were frank. They also said color could be brighter, but added that it was improving each week.

Samples were examined of the sheet taken right off the *Newark News* presses. Formation appeared to be uniform and the sheet was rigid, rather than "limp," which is a characteristic of some newsprint made from deinked fibers.

In the early 1940's, Mr. Scudder already was formulating the Garden State idea. As he was about to set up a research program, the draft interrupted him. After the war, with newsprint in even less supply than during the war, Mr. Scudder began to nurture his idea in greater earnest.

"Although we didn't have enough newsprint to run a daily newspaper adequately," Mr. Scudder said, "our competitive situation demanded that we begin publishing a Sunday edition soon as possible. We took the plunge."

About this time an incident with the flavor of a Ring Lardner tale set in motion a cycle which eventually became the Garden State Paper Co.

A newsstand dealer at the Pennsylvania Railroad station in Newark trooped into Mr. Scudder's office, along with a chemist friend, announcing that the pair had a secret chemical that could deink old newspapers. Their timing was perfect, Mr. Scudder invited a demonstration.

The chemist brought in his pulping equipment—one "Waring"-type blender! A copy of the *News* from the day before was churned in the machine's bowl and soon "repulped." A mysterious green chemical was added. In a few minutes, after a dousing with tap water, yesterday's *News* looked almost white.

Not satisfied with this "pilot" demonstration, Mr. Scudder arranged to have a repeat test made at more adequate facilities than were available on his desk top. In a few days, the newsdealer, the chemist, Mr. Scudder and a bottle of green chemical journeyed to the Herty Lab in Savannah, Ga. There, preparations made, the

Mr. Scudder talks about the process and its future

In an exclusive interview with Mr. Scudder at his *Newark News* office, we discussed why his deinking process was succeeding whereas others had failed, and just what the impact of the process would be on U.S. and world-wide methods of producing newsprint. Here are the questions we asked and Mr. Scudder's answers:

Q. What is the key to the success of the system?

A. A chemical which we worked 11 years to develop. The chemical can be described as a "detergent," which is added to defibred newsprint in the pulpers.

Q. Why did you develop the process and build the mill?

A. At the time research started, newsprint was in short supply. We also began to publish our Sunday edition at this time, even though we did not have enough newsprint for the daily. Once interested in deinking, we remained so.

Q. Who are the backers of the mill?

A. Garden State Paper Co. was financed by the *Newark Evening News* and some close business associates, not connected with the paper industry.

Q. What grades of newsprint are repulped?

A. About 40% "overissues" and about 60% "No. 1 news" (Latter is 100% news from collections.)

Q. What is Garden State's stock composition?

A. About 85% deinked news, unbleached, and 15% unbleached sulfite. We think we can hold long fiber content down to 5 to 7% and still produce a strong sheet. When

green chemical once more was added. This time, however, results were a little different.

"We couldn't see the dials to turn off the equipment," Mr. Scudder recalled humorously. "Within a few seconds, the lab was four feet deep in foam."

The green chemical, its uselessness apparent was discarded, but the newsdealer and his chemist friend were retained in hopes they could develop a workable deinking process. The researchers now were joined by Mr. Illingworth and other technicians. Mr. Illingworth became sole director of research.

"We did get quite a bit of help at this point, American Cyanamid turned over to us facilities at their Stamford (Conn.) lab—along with the services of five Ph.D.'s. This was a big effort on their part.

"We detoured for seven years into study of flotation-separation-deinking methods," Mr. Scudder continued. "During this period we did basic research on the Denver flotation system—and discarded it. We didn't think flotation was the right avenue to the solution of deinking problems. Our judgment apparently was sound, because no truly adequate flotation deinking process yet has been developed."

(Field Enterprises of Chicago reports that it is successfully making newsprint from wastepaper by the Denver



we lost the use of one of our virgin pulp pumps for a few hours we ran a 100% deinked sheet. The sheet ran well and it was hard to tell the difference.

Q. What is the brightness range of Garden State's paper?

A. Brightness range is from 57 to 61% now. We have gone as high as 62%.

Q. What are production and operating speeds?

A. The paper machine currently is running at 1,050 fpm. It is designed for 1,500 fpm. Although we're operating at 100 tpd, with a few adjustments, we could go to 200 tpd or higher. Operating speed on the *News* presses is 48,000 impressions per minute (about 1,435 fpm). Splices are being made at 35,000 ipm.

Q. What does it cost you to make newsprint and what is your selling price?

A. We think we can make it for about \$80 a ton, based on full machine operating speed. Our first contracts, made before the mill went into operation, were \$10 a ton under the current selling price in New York.

Q. How many markets do you have now?

A. Full production has been contracted for by more than 30 publishers who signed 10-year contracts.

Q. Will Garden State's paper match the quality of paper now flowing into the New York market?

A. It will. We think our product will be as good as production from Canadian, and southern and northern U.S. newsprint mills.

Q. What percentage of the total waste newspaper market will you require?

A. Of the current 600- to 700-ton yearly market in the New York metropolitan area, we plan to use about 50,000 tons. Our supply is assured. We use an amount of waste news equal to our daily tpd production to make each day's paper.

Q. What are the chances and consequences of being supplied waste newsprint which already has been repulped?

A. Since we will absorb such a small portion of the total market, any such paper we get will be so small as not to matter. Efficiency of collection is rarely more than 35%. Should this become a problem, and the odds make it doubtful, we would simply divert our purchases to sources of waste newsprint made with virgin pulp.

Q. Will Garden State retain control of the deinking chemical?

A. We have a patent pending now on the chemical. We have been approached on its use by several U.S. and Canadian newsprint producers, and we have received many inquiries from abroad. No decision has been reached on licensing arrangements.

Q. Will you expand into other areas of the U.S., Canada or abroad in newsprint or other grades?

A. This is a possibility. As a matter of good business prudence, however, we first must develop a standard newsprint at the Garfield mill. ■

flotation method at its Manistique (Mich.) mill. Production is being used in a captive market, Field's Chicago *Sun-Times*. See, *PULP & PAPER*, Feb. 20, 1961.)

In 1953, research turned again to mechanical fiber separation. By 1956 a breakthrough had been made, Mr. Scudder said. "We were producing good paper by that time at the Syracuse University paper testing laboratory."

That same year, repulped newsprint was field-tested at the Pejeboscot Paper Co. in Maine. The sheet ran well at 982 fpm. Operation was more encouraging than the "homemade" process some time earlier at Herty.

More research followed, and, in 1959, after a commercial scale run at the Fitchburg Paper Co., in Massachusetts, use of the chemical was given the green light.

"On the basis of this test, Garden State Paper Co. was born," Mr. Scudder said. "Our criterion during all of these runs was that no process could be considered a success unless repulped paper could be made into newsprint of at least 56% GE brightness without bleaching."

"We knew full well that pilot plant tests were not conclusive," Mr. Scudder said. Mills that tried deinking and placed too much confidence in small-scale tests have met only distress and failure."

Before being sold on the market

Garden State paper was tested on *Newark News* presses.

"We had contracted to have our early production sold as rejects, but after seeing how good it was, we decided to use it at the *News*."

Management at Garden State regards deinking, not as a panacea to the costs of newsprint production, but as a technique that is economical now.

"If there were too great a demand on the waste newspaper market," Mr. Rich said, "its price would go sky-high."

Strength of repulped newsprint is not greatly diminished because of the nature of the process, Mr. Rich said. Only some groundwood fines are lost when the stock is washed and cleaned; chemical fiber from the original newsprint is retained.

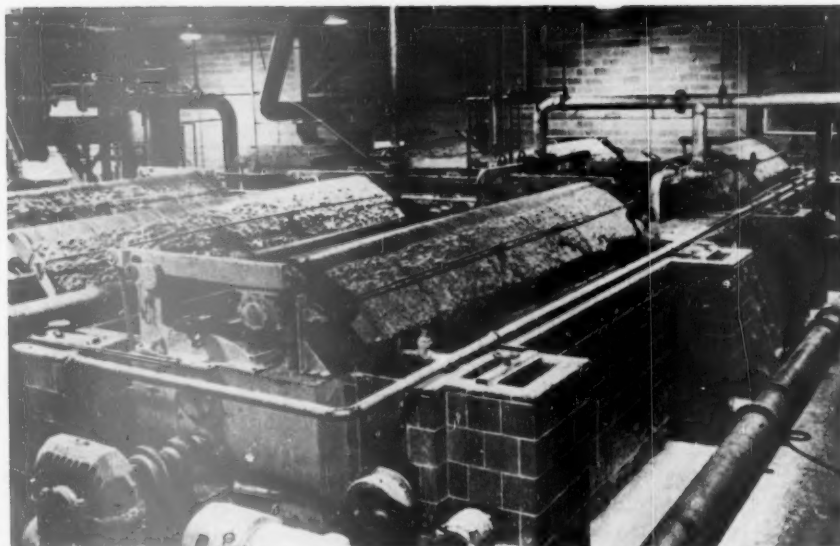
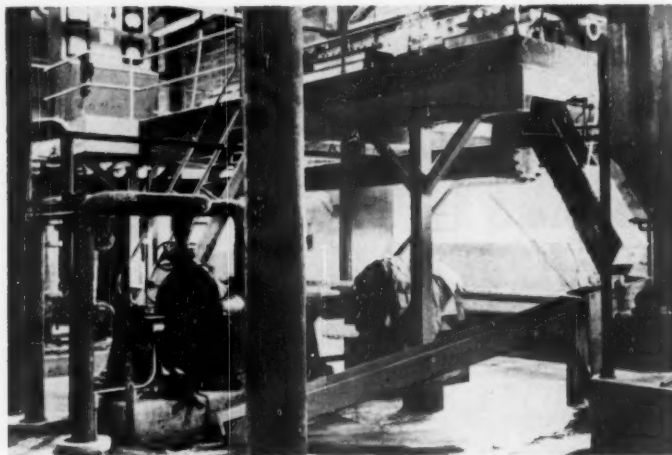
Garden State beefs up its deinked news with about 15% unbleached sulfite pulp. Eventually this will be reduced to between 5% and 7%. Shrinkage now is about 15%.

The first step in repulping

at Garden State is weighing and conveying newspapers on the receiving floor. A fork-lift truck dumps tied bundles onto a distributing conveyor. There, news is weighed, then distributed to two wooden-slat conveyors that feed the pulpers. The distributing conveyor moves on a track right or left to the pulper conveyors.

In the pulpers, newspapers are mixed with chemicals—

Washing stages and flow of deinked



THOROUGH WASHING of deinked fibers uses Centriflers, Jonsson screens, 220 in. washers and pulp cleaners between first and second stages in washer. All units are visible from controls on the elevated platform.

including the deinker—and water at 135 F. A normal batch is 9,000 lb. From the 18-ft. batch pulpers, defibered news in slurry form is sluiced to a 14-ft. continuous pulper where wires and ropes are removed. A fourth pulper is used to mix virgin pulp only.

Of interest in the pulping section are two 500-hp motors, which power the batch pulpers, and design of pulpers which have 16 sloping sides. Both features increase mixing efficiency. The unusual combination of batch and continuous pulpers is intended to give flow flexibility, while, at the same time, allowing rigid chemical control in the batch pulpers.

From storage chests, pulp moves to two Bird Centriflers, then to Jonsson screens, and then to either of two three-stage 220-in. counterflow washers.

A feature of the washing stage is the unusual cleaning sequence. Between the first and second stages, pulp is sent through 67 three-stage Bauer pulp cleaners, then pumped to the third washer.

Water is taken from the Passaic River adjacent to the mill and allowed to settle in a 65-ft.-diameter clarifier. To further assure clean pulp, water is used only once in

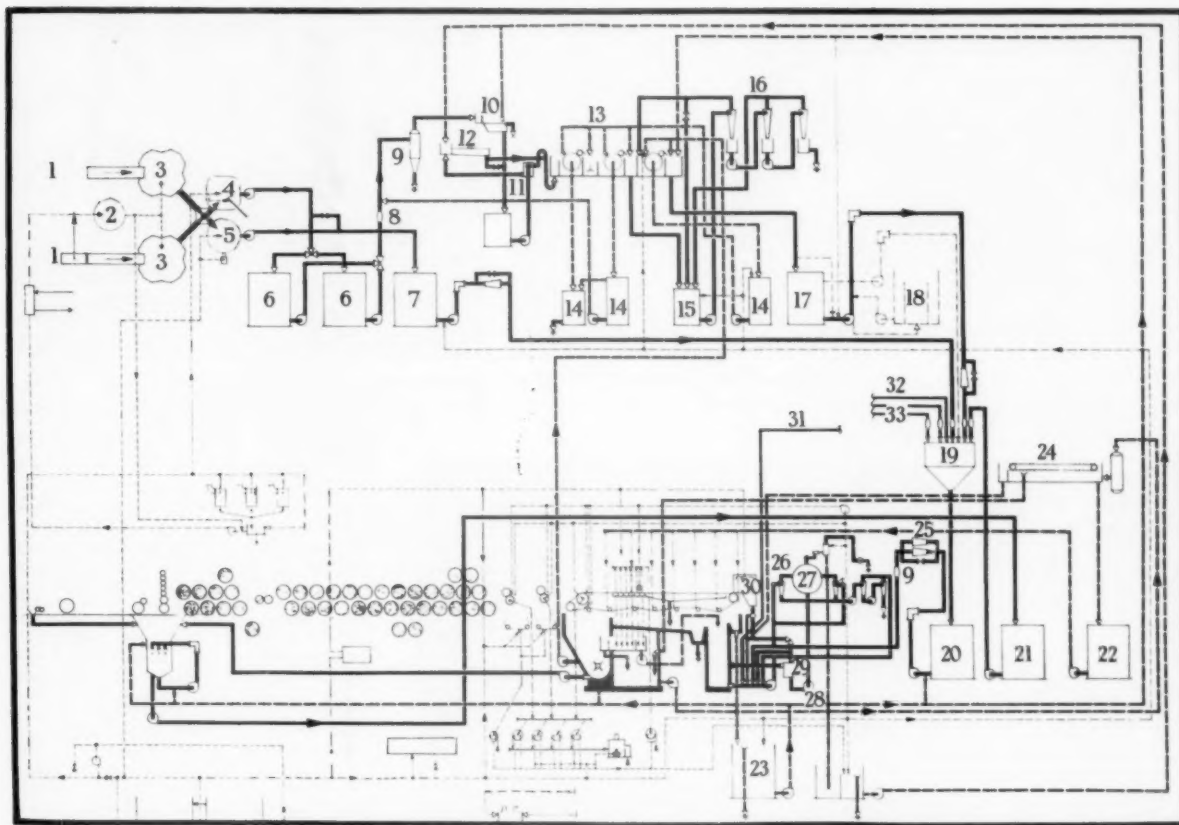
the washing sequence. Water is pumped from the third, to the second, to the first stage, then dumped into a sewer line.

Effluent removal, which at first seemed to engineers an uncomplicated part of the planning of the mill, turned, instead, into a tricky engineering problem. It was thought that mill refuse could be piped into a sewer line on the mill side of the river. Instead, engineers had to run a line under the river to a sewer line on the opposite shore.

Most of the mill equipment is standard. However, there is a Deculator with 20 Bauer pulp cleaners ahead of the paper machine to remove foam. The 230-in. Rice Barton paper machine trims 210 in. and has a Beloit pressure head box. It is designed for 1,500 fpm. Magnetic flowmeters control flow of stock throughout the mill. Main vacuum pumps are operated by one 800-hp synchronous motor.

Power is supplied from an existing plant formerly owned by Forstmann Woolen Mills (later J. P. Stevens Co.). The plant was

fiber at Garden State . . .



KEY: (1) Distributing conveyor, (2) Hot water tank, (3) Two 2,400 cu. ft. news pulpers, (4) One 1,070 cu. ft. continuous pulper, (5) One 700 cu. ft. pulper, (6) News dump chests—4,700 cu. ft., (7) Chemical pulp chest—4,700 cu. ft. (8) Consistency regulators, (9) Two Centriflifiers, (10) Jonsson knotters (three), (11) Selectifiers, (12) Two 12-plate flat screens, (13) Three-stage washers, (14) Effluent chests, (15) Centri-Cleaner supply chest, (16) Centri-Cleaners: 56 primary, 9 secondary and 3 tertiary, (17) Washed

stock chest—4,700 cu. ft., (18) Storage chest, (19) Stock proportioning and metering, (20) 3,000 cu. ft. machine chest, (21) 4,700 cu. ft. broke chest, (22) 3,000 cu. ft. clarified white water chest, (23) 3,000 cu. ft. surplus w.w. chest, (24) Saveall, (25) Jordans, (26) Centri-Cleaners, (27) Deculator, (28) Fan pump, (29) Selectifiers, (30) Headbox, (31) Alum, (32) Clay, (33) Color. Note: Schematic prepared expressly for PULP & PAPER by Roderick O'Donoghue & Co.

completely overhauled. Three turbo-generators were re-wound and new high voltage switching equipment installed together with circulating pumps for condenser cooling.

All process water used by the mill first passes through power plant condensers where heat units are recovered. Two large air compressors were completely rebuilt for 100 psi working pressure.

Condensate from the mill is returned to the boiler plant for reuse. Steam, air and condensate return lines are carried in a structural steel bridge between the power plant and the mill. These are insulated with high temperature insulation plus an aluminum jacket for weather protection.

Fire protection and drinking water are provided by connection to the Passaic Valley Water Commission mains with a separate booster pump for fire protection.

Power is supplied to the mill by three 80,000 lb. boilers, generating 450 psi and two single extraction 2,500 kw. turbines.

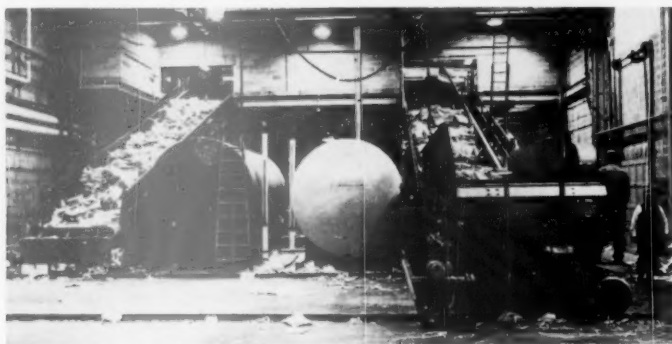
The paper machine is designed to produce standard newsprint: 32-lb. basis weight, 24 x 36 x 500. Slice operating on the pressure headbox is 224 in. The Fourdrinier

Garden State's management



Top (L to R): John Rich, gen. mgr.; Don Finnegan, paper machine supt.; Jim Raymond, plant engineer. Bottom (L to R): Clyde Benson, tech. supt.; Ralph Fay, office mgr.

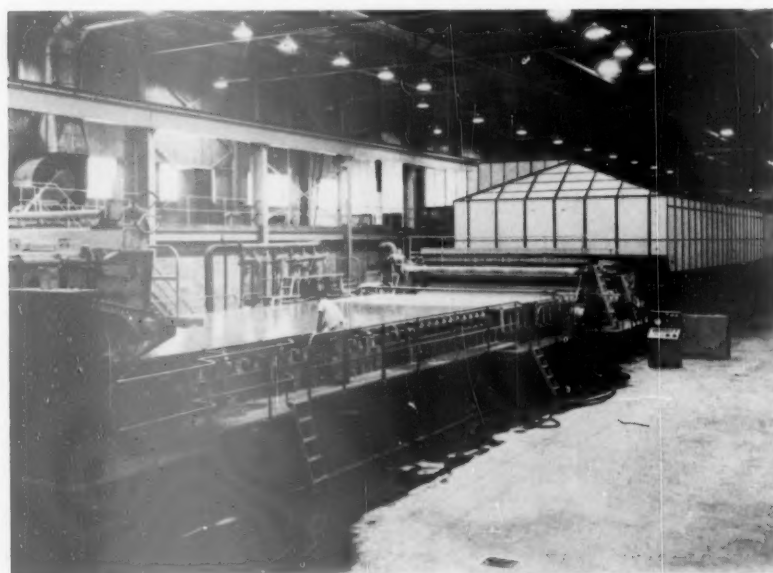
From newspaper to newsprint...



FEEDER TABLE on tracks dumps newspapers onto conveyors. Alum tank is at left; other contains the secret chemical.



PULPER with 16 sides mixes deinking chemical (pipe on left) with water and other chemicals.



CRITICAL TEST: stock made from deinked fibers runs on paper machine.

EQUIPMENT

Paper machine, Rice Barton; headbox, Beloit Iron Works; winder, Cameron Machine; drive turbine, Worthington; machine air system and air conditioning, J. O. Ross Engineering; paper machine suction box system, Clark and Vicario; instrumentation and controls, Foxboro; pipe fabrication, Rowland Tompkins; newspaper pulpers, Edge Wallboard Machinery; purchased pulp pulper, Black-Clawson; water treatment, Graver Water Conditioning; save-all, E. D. Jones (Sveen-Pedersen); three-stage Lancaster washers, Black-Clawson; deculator, Clark & Vicario, Centri-Cleaners, Bauer Bros.; Centriflitters, Jonsson screens, Bird Machine; paper machine cranes, Maris Crane & Hoist; pulper charging conveyors, Gifford & Wood; fork lift trucks, Yale; stock check agitators (10), Impco; electrical equipment, Westinghouse; pulps (stock), Goulds; (vacuum), Nash; Liebeck pulper, E. D. Jones; tile chests, couch & wire pits, Stebbins Eng. & Mfg.; Selectifiers, Black-Clawson; Fibremasters, E. D. Jones; Clafin refiner, Emerson Mfg.; Consistency Regulator System, Fischer & Porter; flat screens, Impco; chemical feeding, Wallace & Tiernan.

has a 40-ft. forming table. The breast roll is 32 in. in diameter, and there are 24 plain and four grooved table rolls. Suction couch is 36-in. in diameter.

The press section has a so-called "poor man's" pickup, one of the first such units to run in the East. Features of this unit are: suction couch is on the wire level and wire drive roll on a point below the suction roll. The sheet then is pulled off the wire between these two rolls.

Thirty-four paper dryers, 60 in. in diameter, have a working pressure of 75 psi. There are six felt dryers, 60 in. in dia., with 224-in-faces. An eight-roll calender stack has a 34-in.-diameter king roll with a 218-in. face and intermediate rolls, 16 in. in dia., with 218-in. faces. A 48-in. reel drum and a 22-in.-diameter winder drum each has a 222-in. face. Machine has horizontal breaker stack for surface sizing.

A standard hypoid drive has been redesigned to run at speeds up to 2,000 fpm. Mechanical drive is 440 v., three phase, 60-cycle for motors up to 200 hp. For higher horse-power motors, mechanical drive is 2,300 v. Hypoid drive units are driven from a basement lineshaft by high capacity Extremultus belts on cone pulleys. ■



END PRODUCT: Mr. Scudder and Mr. Illingworth examine copy of the Newark News printed on Garden State sheet.

Executive training problems and solutions—an interview

Q: What is management?

A: Let's start by trying to clear up some of the confusion about terminology and definition. Management is the function of executive leadership in any field and at many levels. We should confine our discussion to business management, which is the function of executive leadership in a business organization—specifically, a pulp and paper organization.

Q: In your opinion, have companies in the pulp and paper field done outstanding jobs in management education and executive development?

A: Yes, and it isn't necessary to name them. Several pulp and paper firms have established sound programs and I am sure their names come quickly to mind to anyone who has watched these companies operate.

Q: We have heard that many firms had difficulties handling men from the leading business graduate schools. What about this?

A: This problem is becoming less serious and difficult to handle. The graduate and post-graduate schools now recognize that part of their job is to condition their students to fit into the existing organization pattern. Internal management education programs never had this problem.

There is much evidence that the management movement is just getting under way. Currently there are well over 175 colleges or universities with full schools of business with enrollments of over 300,000. And it is rising faster than any other form of education. I know that this is just the beginning.

Q: Many leading organizations in our field recognize the ever-growing importance of management education, but there seems to be a growing confusion about the best way to handle management education and executive development within the individual firm. Companies that have embraced management training programs are wondering what they did wrong, and others are wondering whether they should get started. Why all this confusion?

A: Actually, the toughest critics of management education have always been the leaders in the field of modern management. After years of fantastic growth, we are now in a period of weighing and appraising where we stand. The dedicated leaders who understand its true impact on every aspect of our life look upon this period of self-analysis as evidence of the health and ever-growing importance of management education.

Although the pulp and paper field has been relatively slow in embracing modern management education, a few firms have done outstanding jobs. It is obvious that there is a direct relationship between the soundness of these management education programs and the economic health of the companies and the high regard in which they are held by the financial community.

As we rush into a decade that will be dominated by technology and the sciences there is growing realization that any company that wants to survive must seriously embrace and support management education and executive development.

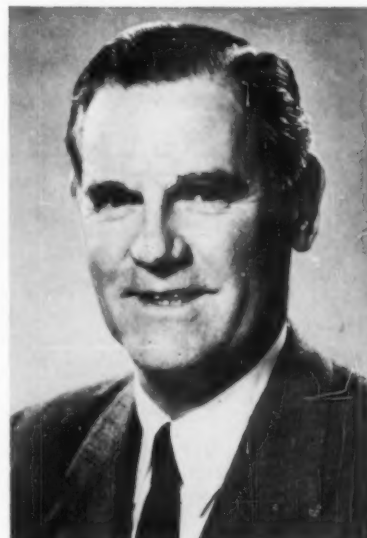
Q: What are some of the steps a firm should take in building a management education and executive development program?

A: The success of any program depends upon the climate within the individual firm. Unless the chief executive officer and the other members of the top policy group believe in the importance of management education and executive development and have a real understanding of its limitations, no program can be successful for long.

The first step is for top management to develop a set of clearly stated objectives. The next step, and in many ways the most difficult, is to develop a pattern of organizational planning.

For many reasons, developing a management training program for supervisors is not only very difficult, but unless a management program goes down to the supervisory level it is not going to be very effective. Most supervisors come up through the ranks, and most of them have little formal

Continued on next page



Edward F. McSweeney
is management adviser

Each year now for several years, Edward F. McSweeney, management consultant and vice president and treasurer, Perkins-Goodwin Co., has discussed long-range problems of this industry from marketing and distribution to merger and other trends. In this article, PULP & PAPER asks him questions on the education and development of managerial talent for the pulp and paper industry.

Mr. McSweeney has been interested in the management and supervisory problems of industry since the early 1930's.

Mr. McSweeney founded Edward McSweeney Associates, management consultants, and he is management advisor to the Printing Industry of America, and author of "Organization for More Efficient Management."

In earlier PULP & PAPER interviews, Mr. McSweeney is credited with creating such phrases as "the urge to merge" and "total marketing" both of which have since been adopted.

...Management and Supervision

education, and yet they are asked to be both students and teachers. When he is made a supervisor he must handle dozens of closely integrated problems at one time and come up with workable answers. Essential to any sound management program is that it start with top management. Only in this way can top management men themselves learn how they can become better executives and then set the stage and emphasize the impor-

ance of middle management training.

For best results all levels of management should participate. Management must be completely sincere to get through a successful training program.

Training must be emphasized in every phase of the trainee's job. Trainees must be backed up by management with proper symbols of their value to their company—proper salary levels, company financed attendance

at schools, pay for sick days, etc. Trainees must receive the actual status and dignity they are told in training sessions they must assume.

The few firms in our field that have excellent programs may differ to some extent, but on the following points there seems to be general agreement:

1. That management today is recognized as a distinct kind of work.
2. That it requires specialized skills, aptitudes, and training.

PACIFIC COAST PIMA

PR, Sales, Safety Scrutinized

By LOUIS H. BLACKERBY, Western Editor

—Seattle, Wash.
THE CHIEF EDITORIAL WRITER of a major Pacific Northwest newspaper has criticized the pulp and paper industry for failing to develop a "national image" that will invite public support of its goals and sympathy for its problems.

The reprimand was delivered by Nard Jones, of the Seattle Post-Intelligencer, at the recent meeting of Pacific Coast PIMA here.

Mr. Jones was one of several speakers at the two-day conference, which was devoted to finding solutions to some principal industry ills. Other subjects examined included sales, personnel relations and safety.

Of all the problems explored, however, the industry's public relations is perhaps the most topical, in view of new anti-pollution legislation and edicts which have focused attention on paper mills (PULP & PAPER, Oct. 30, 1961, p. 9).

Mr. Jones, a former associate editor of PULP & PAPER and an author, warned the management men that they would have to publicize the industry's pollution-abatement achievements, or risk propagation of a distorted version of its role. He indicated that one of the best channels is the newspapers. Referring to the recent action taken by this state against 10 mills, he declared, "You need it because you want and should have wire service reporters who will not blindly or thoughtlessly take a state government hand-out on a pollution question and tell the 'whole story' from the

state angle. Forty-five Washington newspapers received the state pollution story. None received industry's story on the subject."

The newsman-author helped work up the industry's first nationwide community relations program, undertaken 11 years ago by the American Paper & Pulp Assn., while he was on the staff of P & P.

But, he asserted, on a national basis, the industry has made "hardly a first down on creating an image."

"Stubbornly, it has conducted each year in New York City something it calls 'Paper Week,'" he said. "I suppose that not one-tenth of one percent of the people right in New York City know that such a thing as 'Paper Week' is going on. Therefore, you can imagine how many outside New York are aware of it."

Mr. Jones declared it was not enough for residents of mill communities to appreciate the value of the industry, adding that "great vacuums exist in the populous centers where sales can be large and where votes can materially affect the future of pulp and paper and the futures of anyone in it."

He laid out a four-point program to improve public relations:

- Stimulate the interest of newspapers across the nation in "Paper Week."
- Coordinate efforts of regional groups into a national program.
- Educate top editors and publishers of large papers in populous, non-

pulp-and-paper areas to the importance of the industry.

• Work with hometown papers, using devices such as the letter-to-the-editor.

Harry A. Hayward, vice president of sales, R-W Paper Co., discussed key problems that arise in sales and personnel relations.

Efforts should be redoubled to instill in employees the desire to strive to make products of the highest quality. "Quality must be actively taught throughout the organization," he contended. "Each participant must be encouraged to take pride in his work."

Customer service should also be improved, he said. "Service is the vital link between the manufacturer and consumer," the R-W executive told the management group. "Any company that disregards this factor is in danger of losing out to competitors. To maintain good customer relationships, it is important to remain flexible and be constantly planning ahead so as to render service to customers according to their needs."

Regarding personnel relations, Mr. Hayward chided that "sour spots" are usually found somewhere near the top—in the brackets from supervisor to department head. "The thing that makes business difficult and complex is people," he lamented. A major advance in smoothing problems involving personalities can be made with good communications, he said, adding that "intelligent and comprehensive

3. That sound management principles and practices apply to all kinds of organized enterprise, whether large or small, to all functions, and to all levels of management.

4. That these principles and practices can be taught, learned, and further improved.

Another common denominator seems to be that one officer in top management is given the responsibility of building a workable program and seeing that the proper climate generates the understanding and enthusiasm of management at all levels.

Q: Has the appraisal and evaluation you mentioned earlier developed any specific conclusions?

A: At the educational level the enrollment in business courses continues to grow more rapidly than almost any other segment, but there is now a growing realization that management cannot be taught to undergraduates. The most that can be done is to teach the tools of business. Management education is moving into the graduate school, and the most successful results are being achieved at the post-

graduate level, where the carefully campus after years in business.

Actually, management education and executive development are part of today's boom in adult education. The worldwide social, economic and scientific changes place more and more emphasis on self-development.

The new management leader must be able to upgrade unskilled workers while dealing with highly skilled workers. He must be a man who is undergoing continuous self-development and training. ■

instructions, in the form of requests rather than commands or demands, build goodwill, respect, wholesome attitudes and a pleasant atmosphere."

Safety got double billing at the meeting, which reflects the importance accorded it by producers on the West Coast, a region with an impressively low injury rate.

L. B. Hoelscher, safety director of Weyerhaeuser Co., Tacoma, said the most important thing in creating an effective safety program is to fix responsibility on one individual.

"If no one has responsibility for safety, or if there are differences in thinking as to who is responsible in the organization, people will continue to be killed, hurt and maimed, and suffer in innumerable ways," he declared.

He indicated that the manager or supervisor probably should be held accountable, since he is in charge of every other phase of a particular operation. Uncertainty regarding his responsibility, however, usually stems from the fact that he has only a vague idea of what tasks he must perform. The result is that, "with few exceptions, a supervisor is not actually held accountable," he pointed out, advocating training programs "to develop uniform understanding of managerial functions in accident prevention at all levels."

The need to investigate the cause of every injury no matter how small was stressed by Clyde B. Anderson, technical assistant to the general superintendent, Inland Empire Paper Co., Millwood, Wash. "Eliminating the small injuries has the effect of putting a magnifying glass on your whole safety program, because if you eliminate the first aid injuries, there will be no lost time injuries . . . no lost time, and no fatalities," he advised the PIMA men. ■



SOME PRINCIPAL SPEAKERS: L. B. Hoelscher, safety director of Weyerhaeuser Co., Tacoma; Clyde Anderson, technical assistant to general superintendent, Inland Empire Paper Co., Millwood, Wash.; V. L. Grochow, Industrial Electric Co., Everett, Wash., and P. A. Timmons, Epoxylite Corp., El Monte, Calif., who gave joint talk on encapsulation of electric motors; W. L. Wood, Corrosion Controllers, Inc., Camas, Wash., who discussed fiberglass reinforced plastics applications; and A. Hugh Wickett, superintendent of kraft and neutral sulfite operations, Weyerhaeuser, Longview, who was session chairman.



KEY PARTICIPANTS AT PACIFIC PIMA: Nard Jones, chief editorial writer of Seattle Post-Intelligencer; Harry A. Hayward, vice-president of sales, R-W Paper Co., Longview, Wash.; Henry L. Stoltz, superintendent at R-W. ■

Mechanized Logging Gains in Canada

Several companies
favor combines
which may indicate
a preference
for stump processing

THE DEVELOPMENT of mechanized pulpwood equipment in Canada is gaining momentum. While, historically, manual harvesting methods have prevailed because shortwood was being handled, the trend is toward more and more mechanization.

Design and operation of new equipment probably will continue to be affected by debate over the relative merits of tree-length vs. stump processing of pulpwood. (P&P, Aug. 21, 1961, p. 69)

According to one source, there are a number of companies in Canada today that believe the road to ultimate cost reduction lies in the development of pulpwood processing machines or combines.

Two companies now are engaged in combine projects but have not revealed them publicly. Two other companies, pleased with the success of the Busch Combine in the South, have imported the units and are testing them under Canadian conditions.

A combine developed by another company by its own engineers has proved itself in principle as having a cost-reducing potential of at least \$2.00 per unit. Its labor productivity potential is said to be four or five times that of conventional methods. Still another company has developed a tree logging technique whereby full trees are felled, bunched and skidded by machine to a semi-mobile processing unit, which, in turn, de-branches and cuts and loads processed bolts.

Support equipment for these various machines also is being developed. Examples are skidders with a self-loading and unloading principle operated by one man, and automatic



PROCESSING AT THE STUMP, a leading method of pulpwood handling in eastern Canada, is done here with a Busch Combine. The unit severs tree from stump, delimbs and bucks wood and carries it to a roadside for forwarding. Some view the combine as the "ultimate weapon" for reducing pulpwood handling costs.

scaling devices for use with combines under development.

Certain reasons have been put forth by industry sources suggesting a breakthrough in mechanization in eastern Canada. Years of experimentation have piled up data about stand and terrain conditions. Management now feels that trees to be handled will be smaller than thought at first. Fixed costs are more appreciated in the operation of logging machinery. Much is known about the effects of environment on production. Specific machine types have been designed from the ground up. Repair and machinery costs are now more readily accepted as legitimate operating costs, not as "hidden" costs.

Based on American Pulpwood Assn. releases 61-R-31 by D. A. Swan, APA Forest Engineer, and TP-61-33 by I. F. Fogh, Canadian International Paper Co.



ONE-HALF CUNIT LOAD is dropped at roadside by Busch Combine, which has been successful in South.



DOWTY FOWARDER can load three 8-ft. cunits at stump, bring them to roadside and unload with hydraulic grapple.



TREE-LENGTH LOGGING makes use of Vit-Feller-Buncher which severs tree, loads and carries a cunit to processor.



SELF-LOADING SKIDDER loads one tree-length cunit with revolving telescopic boom, but doesn't fell trees.



PROCESSING TREE-LENGTHS is job of this combine. It delimbs, debarks, bucks and ejects peeled wood.

APA news briefs

Pulpwood "jammer"

is a homemade device used to deck or load large bolts in the woodyard . . . one described is fashioned from old car transmission, differential and rear-end . . . powered by 5 hp motor . . . 10-ft.-long pipe-boom is 3 in. in diameter and swings 90° in either direction from triangular frame . . . frame is about 10 ft. high . . . bolts are handled by thongs, split line or end grabs . . . cost to build: about \$100. [61-R-16]

Bombardier logging equipment

is reviewed and pictured at different tasks . . . author traces development of tracked units from model J-5 through Vit-Feller-Buncher made by company . . . excellent "before" and "after" photographs of split grouser and new solid grouser construction. [61-R-30]

Three-cord pulpwood dray

is being used to skid more than 40 cpd at one Minnesota stump logging operation . . . drays are about 10 ft. long and 8 ft. high . . . hauling, loading and unloading of drays done with crawler tractor with hydraulic knuckle-boom. Method of construction in release. Costs about \$150. [61-R-9]

Fire hose washer

cleans linen hoses dirtied in forest fire use . . . machine has two power-driven brushes between which hose is passed . . . constant flowing water washes away dirt . . . more than 100 ft. per min. washed by three-man crew. [61-R-26]

Model 200 Timberjack

skidding tractor is given operating appraisal by APA engineer in field . . . all-wheel drive tractor is rubber-tired, weighs 6,500 lb. and is built by Timberland-Ellicott, Ltd., Woodstock (Ont.) Canada . . . report says tractor consistently outperformed two crawler tractors by about 25%

. . . consumed about 1 gal. gas an hour . . . feature is angled driver's seat for better access to winch controls . . . complete specifications, operating figures and prices in release. [61-R-25]

Pickaroons

designed to reduce damage to chippers, debarkers and saws . . . aluminum head has hardened steel point bonded at tip . . . sharply-hooked head is 6 in. long; slimmer, slightly-hooked head is 8 in. long. Large photographs in release. [61-R-19]

Oil changes

in mechanical equipment, sometimes a hit or miss maintenance item, can be time-tabled with an oil analysis program available through a major oil producing company. Briefly, the system uses a special filter paper and chemicals to determine alkalinity, dispersancy and contamination of oil in use. The system is provided free by the oil company to fleet owners. [61-R-13]

Pacific PIMA elects new officers



STOLTZ

WILCOX

PUMPHREY

WICKETT

SYME

NEW OFFICERS of Pacific Coast PIMA assume office next May at Gearhart tri-way meeting. A. Hugh Wickett, Weyerhaeuser Co., Longview, Wash., elected as 1962 chairman, receives symbolic gavel from Chmn. Louis W. Pumphrey, Westminster Paper Co. Ltd., New Westminster, B.C. Henry L. Stoltz, R-W Paper Co., Longview, advanced to 1st vice chairman; L. D. Larson (not shown), Inland Empire Paper Co., Millwood, Wash., became 2nd vice chairman and T. D. Syme, Western Kraft Corp., Albany, Ore., 3rd vice chairman. J. M. Wilcox, ESCO Corp., Portland, Ore., reelected as secretary-treasurer.

SEATTLE, WASH.—After tackling some of the industry's "people problems," members of Pacific Coast PIMA meeting here in Seattle elected new officers for next year. The meeting, which attracted more than 350 registrants, was held here on November 30 to December 2 at the Olympic Hotel.

Because of his retirement next year, Hardie J. Forkner, Inland Empire Paper Co., 1961-62 division 2nd vice chairman, declined nomination for 1st vice chairman.

Kay Fralick, vice pres., Morden Machines Co. received an award for her services as convention secretary. ■

Highlights of the meeting are reported on p. 40.

Two industry men head American Foresters

WASHINGTON, D.C.—Paul M. Dunn, director of forestry for St. Regis Paper Co. since 1955, has been elected president of the Society of American Foresters for 1962-1963. He succeeds Charles A. Connaughton of San Francisco, regional forester, U.S.F.S.

B. E. Allen, manager of the wood-

lands division of Union Bag-Camp Paper Corp., was elected vice president.

Mr. Dunn is a forestry graduate of Iowa State University. During his forestry career, which spans three decades, he has been dean of Utah State University's College of Forest, Range

and Wildlife Management, and dean of Oregon State University's School of Forestry.

Mr. Allen is a forestry graduate of the University of Michigan, has been on the forestry staff of Union Bag-Camp since 1943, and manager since 1958. ■

TAPPI medals awarded to Campbell and Libby

NEW YORK—Long and distinguished careers in the pulp and paper industry will be climaxed next February 22 when W. Boyd Campbell and C. Earl Libby will be presented with the TAPPI Medal, the association's highest honor.

A graduate of McGill University in Montreal with a bachelor of science degree, W. Boyd Campbell later received a doctor's degree from McGill for his research on sulfur dioxide solutions. He entered the Forest Products Laboratories of Canada in Montreal in 1913 as asst. superintendent. After World War I, he worked for Provincial Paper Ltd. at Georgetown, Ont., for four years before returning in 1925 to the pulp and paper division of the Forest Products Laboratories. During the next 15 years he engaged in funda-

mental studies on beating, cellulose-water relationships and pulp values.

In 1940, Dr. Campbell was appointed director of technical research at the Pulp and Paper Research Institute of Canada. During World War II, he made significant contributions in such fields as electrical conducting papers, paper filters for gas masks, safety papers, non-metallic land mines and iceberg aircraft carriers.

After World War II, Dr. Campbell continued to direct fundamental research programs at PPRIC until he retired in 1953. Since then he has consulted for various pulp and paper companies.

C. E. Libby earned his b.s. degree in chemical engineering at the University of Maine, later was awarded the professional degree of chemical



CAMPBELL



LIBBY

engineer by the University for his work in hardwood pulping.

In 1920, he was named asst. professor of forest chemistry at the New York State College of Forestry at Syracuse, N.Y., two years later became

its professor of pulp and paper technology. From 1933 until his retirement, Professor Libby, as he has since been called, was head of the department of pulp and paper manufacture at the College of Forestry.

In cooperation with the late Arno Nickerson, Professor Libby promoted the formation and establishment of the Empire State Paper Research As-

sociates (ESPRA). He was technical director until his retirement from the College of Forestry in 1952. One of the offsprings of the ESPRA research projects resulted in the Chemigroundwood process.

In 1952, he was named professor of pulp and paper technology at the School of Forestry, North Carolina State College in Raleigh, N.C. Here,

he was instrumental in developing the pulp and paper curriculum and the laboratory facilities which were completed in 1956.

Professor Libby retired as department head in 1960 and now lives in Pompano Beach, Fla. It has been said that Professor Libby has probably trained more technical graduates for careers in paper than anyone else. ■

Owens-Illinois fills key production posts

TOLEDO, OHIO—The five top posts in the production department of the newly formed Forest Products Division of Owens-Illinois have been filled. They are K. M. Cherry, production manager, paper mills; William R. Win-

ters, manager, board scheduling and purchasing; William F. Connelly, production manager, corrugating plans; Pete L. Chism, manager multiwall bag plant, and Fred Janz, manager of engineering and maintenance for cor-

rugating plants.

Messrs. Cherry, Winters and Connelly will be based here in Toledo, Mr. Chism at the Valdosta, Ga. plant and Mr. Janz at the Jacksonville, Fla. corrugated plant. ■

STRICTLY PERSONAL...

East

Dan McGillicuddy, Jr., assistant manager of domestic sales, Rayonier Inc., is proudly wearing an automatic-wind wrist watch suitably engraved on the back to record he is now a 25-year Rayonier man. He received it from President Russell Erickson at a New York dinner. He is the 44th 25-year man in Rayonier.

W. D. Markowski, formerly winder sales mgr., Beloit Eastern Corp. has opened an office as independent consultant at Box 276 Whitford, Pa. Phone is Andrews 9-2569.



William C. Froude, Jr. is now pulp sales representative in New England for Montmorency Paper Co. Inc. (Anglo-Canadian Pulp and Paper Mills Ltd. and Dryden Paper Co. Ltd.)

Curtis V. Silvernail is now assistant to the manager of the dept. of service and quality control of International Paper Co.'s fine paper and bleached board division. He serves as assistant to Oscar E. Anderson in providing technical services and maintaining quality control.

J. H. "Pete" Heuer, vice president, manufacturing, Great Northern Paper Co., has been appointed by Frederic Soderberg, president of the U. of Maine Pulp & Paper Foundation, to serve as chairman of the committee to arrange for

the third summer Institute for the pulp and paper industry at the U. of Maine.

Dr. Otto J. Kallmes has been appointed to post of research associate by the Technical Operations Division of St. Regis Paper Co. He is currently undertaking fundamental research in paper structure. Dr. Kallmes received his b.s. in chemical engineering from Northeastern U., and his doctorate from The Institute of Paper Chemistry. Prior

to joining St. Regis, Dr. Kallmes did post-doctoral research in England.

Alfred E. Beecher has also been named to position of research associate at St. Regis. He is presently studying systems control, holds his b.s. in electrical engineering from the U. of Michigan, m.s. from the U. of Southern California and electrical engineer from MIT.

Eugene F. McCarty is now development associate at St. Regis and will be assigned to special development work in the area of new packaging tech-



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STRICTLY PERSONAL . . .

nology. He has his b.s. and m.s. in wood technology from the U. of Minnesota.

Clyde A. Plaskett is now staff specialist in the technical operations division, St. Regis. He developed St. Regis' Capcote-Pe extrusion process and will work on special projects in the area of thermoplastics extrusion. He has a degree in chemical engineering from the U. of Wisconsin.

All these appointments have been made at the new St. Regis Technical Center, West Nyack, N. Y.



Joseph F. Long, Jr., previously with Albany Felt Co., is now sales engineer in New York and New England for Paper Mill Suppliers Inc., exclusive distributors for some Albany felts.

Michael J. Desiderio is now vice president, Whippany Paper Board Co. Inc. He will continue to serve in sales and service areas in addition to administration.



William F. Wanner has joined Columbia Specialties, subsidiary of Columbia Box Board Mills Inc., as manufacturing manager. Mr. Wanner previously was with Continental Paper Co., Ridgely Park, N.J. He will be i/c of all manufacturing in the new plant under construction adjoining Columbia's mill on route 295.

Frank J. Church, treasurer and general mgr., George La Monte & Son, and **Alvin W. Scheuerman**, controller, Sealright-Oswego Falls Corp., have been elected to membership in the Controllers Institute of America . . . **Charles M. Gasser** has joined Blandin Paper Co.'s sales organization. He had been in the converting division of Bulkley, Dunton & Co., Inc., will now cover the Midwest, working out of New York. . .

Thomas E. Drumm Jr., administrator of the BDSA, U.S. Dept. of Commerce, announces enrollment of **Benjamin F. Moats, Jr.**, vice pres.—marketing, Fitchburg Paper Co., and **Alfred E. Nalle**, special asst. to the vice pres.—sales, West Virginia Pulp and Paper Co., as members of the National Defense Executive Reserve. . .

Thomas F. Nolan Jr. and **Joseph R. Carney** have been promoted to new positions of general sales manager and man-

ager of sales coordination, respectively, for Oxford Paper Co. The news was made public by **Andrew M. McBurney**, vice pres., sales. **C. A. Vandervliet** is now manager of Continental Can Co.'s Bondware Division plant in Newark, N.J. . . **Edward G. Deibert** has joined the technical sales service staff of Oakite Products, Inc., based in Allentown, Pa.

Midwest

James W. Hulsizer is now sales representative for The Bauer Bros. Co. in Wisconsin, Minnesota and upper peninsula of Michigan. He will headquarter in Appleton.



Donald W. Campbell is now general mgr. of the Chicago plant of the Wabash Fibre Box Co. Division and **Ronald R. Hanks** succeeds him as division controller.

Dr. Howard S. Gardner joins the staff of the Institute of Paper Chemistry as a senior research associate and member of the faculty. He is presently director of research and development for Fibreboard Paper Products Corp., San Francisco, Calif., terminates his duties there on December 31. He will join IPC on February 1.

Canada

Reed O. Hunt, Jr., has been named assistant chief engineer, Crown Zellerbach Canada, succeeding **Rolf Beck**, who has been assigned as project co-ordinator for the new paper mill being built near Amsterdam by Crown and Van Gelder Sons . . . Succeeding Mr. Hunt as project engineer is **Lynn Thirtyacre**, who will assume responsibility for structures, with **Nick Elia** steam project engineer. Mr. Hunt is a Stanford graduate who worked as a chemist with an oil company before joining Crown Zellerbach in 1953. Mr. Thirtyacre is a Washington University graduate and Mr. Elia, who joined CZ central engineering in 1956, graduated from the University of B.C.

Pacific

Simpson Lee Paper Co. old-timers cited at Everett, Wash. operation: **Jerry LeCuyer**, mgr. of converting dept., for 30 yrs. service, **H. Rad Russell**, paper mill supt. celebrating completing 25 years. . . **Deholm Smith**, asst. res. mgr. and pulp mill supt. of Northwest



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Pulp & Paper Ltd., Hilton, Alberta, has been appointed res. mgr. of St. Regis Paper Co. pulp-paper mill at Tacoma, Wash. effective Jan. 1 according to William R. Haselton, general mgr. of Tacoma area operations.



Hague Callister is new coordinator of sales and services for Morden Machines Co. He had been with W. F. Preble Co., general insurance in Portland, Ore. for ten years.

Crown Zellerbach promotes **Wayne Rodgers**, asst. chemist at Central Research div., Camas, Wash., to asst. technical supervisor, Western Waxide div., North Portland, Ore.



Edward L. Deal has been promoted to office mgr. at Crown Zellerbach's St. Helens (Ore.) Div. succeeding **C. C. Eckert** who transferred to the company's



International Peddlers' Seattle section confers honorary membership on **F. L. Ziel** (left front), resident manager of Crown Zellerbach Port Townsend Div., at grand finale of Wake-em-up breakfast skit at Pacific Pima meeting.

Bogalusa, La. operations as office manager . . . **C. J. Mayeux**, formerly plant engr. at CZ-Time plant at St. Francisville, La., becomes plant engr. at Crown's St. Helens operations . . . **Elmer C. Mays**, asst. electrical engr. at CZ West Linn Div., transfers to St. Helens as electrical supervisor . . . **George E. Todd** has been promoted from machine tender to shift supervisor-paper machines at CZ St. Helens.

Clarence W. Richen, manager-Northwest timber operations, Crown Zellerbach Corp., Portland, Ore., was elected president of Western Forestry & Con-

servation Assn. at the organization's 52nd annual meeting held Dec. 6-8 in Portland. Also elected were: 1st vice pres. **Louis Frandsen**, Southern Pacific Land Co., San Francisco; vice presidents **Royce G. Cox**, Potlatch Forests Inc., Lewiston, Idaho, **O. B. Calvin**, Glacier Park Co., Sommers, Mont., **E. F. Heacox**, Weyerhaeuser Co., Tacoma, Wash., **R. G. McKee**, deputy minister of forests, Victoria, B. C., **Nils B. Hult**, Hult Lumber Co., Junction City, Ore.; **Royce Cornelius**, Weyerhaeuser Co., Tacoma, secretary; **C. S. Cowan**, Seattle, treasurer; **H. R. Glascock Jr.**, Portland, forest counsel.

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STRICTLY PERSONAL . . .

South



Graser



Hurr

Earl J. Graser is now manager, structural design dept., and Irvin J. Hurr becomes administrative services manager, both for folding cartons, forest products operations of the Packaging Division of Olin Mathieson Chemical Corp.

Mr. Graser will be responsible for development of all folding carton structural design and will also work with the mechanical development dept. on new packaging ideas for automation.

Mr. Hurr will be in charge of all administrative services for carton operations.

Both men will be located in West Monroe, La.

The Southern Exposure . . . Edward P. Stone, administrative assistant to the mill agent of the Natchez, Mississippi

mill of International Paper Co., has been promoted to agent of the company's Camden, Ark. mill. He replaces John E. Campbell, whose promotion and transfer to IP's division office in Mobile was announced recently in this publication.

Michael Shenigo Jr. is now regional engineer for the Hinde & Dauch Division, West Virginia Pulp and Paper Co. in Richmond, Va. He will be responsible for engineering matters pertaining to buildings and equipment of H&D's plants at Richmond, Baltimore and Gastonia, N.C.



Chase



Robson



Daniel

Richard R. Chase, asst. manager of the Savannah Technical Division of Union Bag-Camp Paper Corp. has been appointed to newly created post of director of sales technical service, based in New York. Succeeding Mr. Chase is

Horace T. Robson, supt., mill technical dept., who now becomes asst. manager of the Savannah Technical Division. Julian W. Daniel becomes mill technical supt.

W. A. (Bill) Robinson, pulp mill supt. of the Demopolis, Ala., mill of Gulf States Paper Corp., died recently. He previously had been with Container Corp. of America Fernandina, Fla., and Rayonier Inc., Jesup, Ga., and joined Gulf States in 1957. He was a native of Birmingham and a graduate in 1931 from Auburn University.

Pulpwood

Samuel Trask Dana, dean emeritus, School of Natural Resources, University of Michigan, was presented a bronze plaque and \$500 from American Forest Products Industries for distinguished service to the industry. In 1927, Dean Dana established the School of Forestry and Conservation at the University of Michigan . . . Samuel C. Sweeny, pioneer in survey and study of industrial forest resources retires from West Virginia Pulp and Paper Co. after 34 years. Forty years ago, Mr. Sweeny recommended use of radio communication in forest management programming.

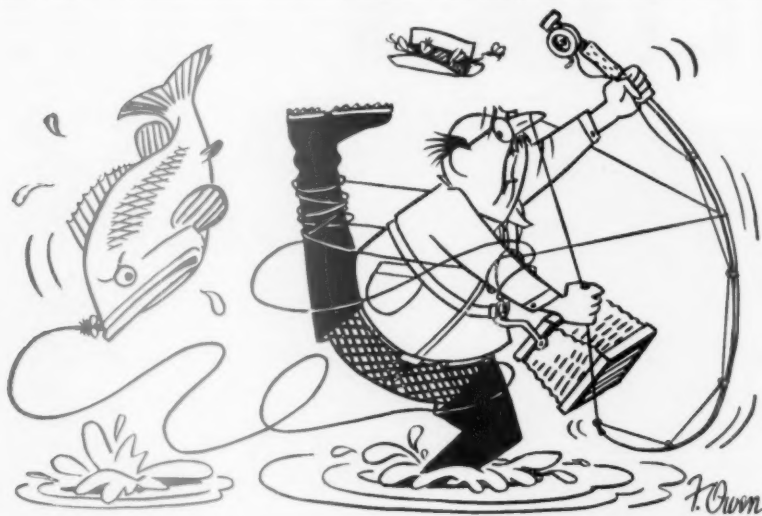
Marcus G. Rawls has been appointed manager of southern woodlands for St. Regis Paper Co., serving both the Jacksonville and Pensacola, Florida mills. He reports to Paul M. Dunn, director of forestry. Mr. Rawls has been manager of wood procurement and land acquisition for southern woodlands since 1959.

Suppliers



Joe Muckley is vice president of new Martin-Marietta Corp.

New York—Joseph E. Muckley, formerly vice president of the Simpson Timber Co., Seattle, has been elected a vice president of the Martin-Marietta Corp., a merger of two prominent companies which are prominent in aero-space developments, resins, adhesive and other chemicals, lithographic type inks and construction materials. His headquarters are in New York City . . . turn to p. 50



THERE'S A RIGHT WAY TO HANDLE H₂O₂, TOO!

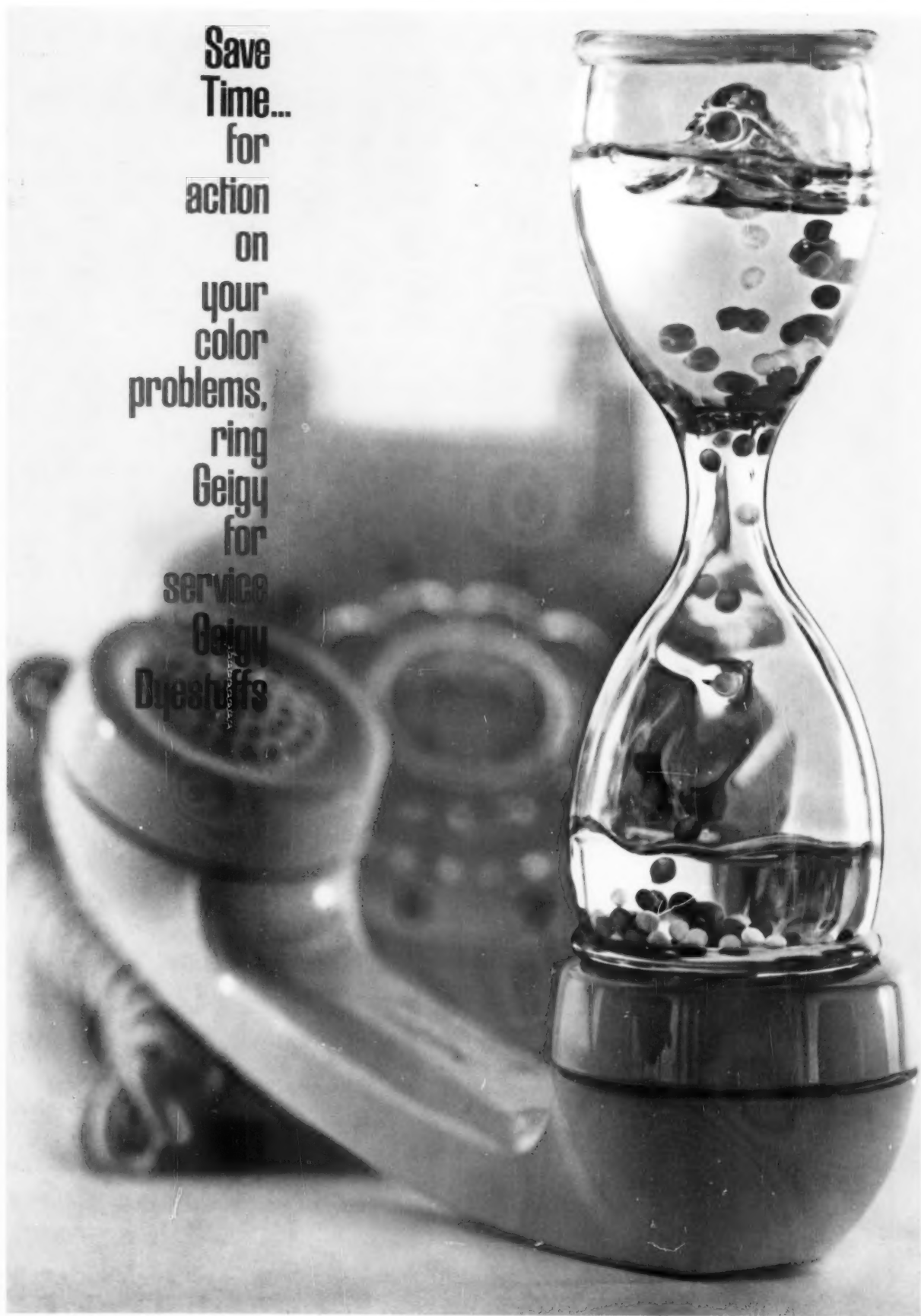


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Division**

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Becco engineers are specialists in Hydrogen Peroxide...and in the best ways of handling it. Let us put our fourfold service—offering survey, proposal, installation and inspection—to work for you now. It's your assurance of savings, safety and convenience.

Save
Time...
for
action
on
your
color
problems,
ring
Geigy
for
service
Geigy
Dyestuffs



Strictly Personal . . .

One of the merged companies, American Marietta Co., has been an important supplier of products to the pulp and paper industry.

Born in Pennsylvania and a graduate with honors from Yale, Mr. Muckley has recently been operating a financial consulting service in Seattle. During his years with Simpson, his responsibilities were in the financial field. Simpson makes fiberboard as well as other timber products and is one of the largest in the forest industries field. It is partner with Lee Paper Co., in three paper mills.

Meet Huyck's

TOM ALEXANDER



Tom Alexander, a graduate of Philadelphia Textile Institute, is Huyck's Chief Felt Designer. Since joining Huyck in 1951, he has devoted the lion's share of his time and effort to the construction and design of papermakers' felts.

Naturally, Tom and all of the felt designers he supervises know and understand paper machine requirements. When machine components, speeds or grades are to be changed, this design team has the experience and ability to convert such revisions into successful felt design modifications. Tom and his group also draw heavily upon Huyck's new developments in chemical treatments, synthetic blends, new weaves and yarn constructions to assure you the best in felt performance.

HUYCK FELTS

First in felts since 1870

SUPPLIERS

Manchester Machine realigns

sales and service functions, according to Gex P. Condit, president, The Manchester Machine Co.

Huber C. Newcomb, vice president and sales manager, has overall responsibility for sales. Donald E. Mayo, is regional mgr., sales engineering in New England and is based in Springfield, Mass. Douglas P. Newcombe is regional mgr., sales engineering, North Central States, with headquarters in Appleton.

John R. Hanzlik, formerly asst. chief engineer, is now manager of sales service and Robert Downing serves as sales correspondent. Wayne C. Back, service manager, heads up the repair and maintenance service section.

S. S. Moore & Associates

in Portland, Ore., have been appointed as Pacific Northwest regional representative for Kahn & Co. Inc.'s line of compressed air/gas filters.

Fluid filters and strainers

manufactured by Rönninger-Petter Co., Vicksburg, Mich., are now available to West Coast mills through S. S. Moore & Associates, Portland, Ore. The latter firm also represents National Air Vibrator Co. and Pennsylvania Pump & Compressor Co. products in this area.

Summer Iron Works

Everett, Wash., has acquired exclusive manufacturing and sales rights for the full line of Pointer-Willamette trailers. The P-W group, in addition to log trailers, includes flat bed, machinery, and straddle-carrier units.

A "total industrial system"

is behind agreement of mutual support in engineering and marketing of automated control systems and processes by Allis-Chalmers, Consolidated Systems Corp. and International Business Machines Corp. The three companies will

work together when it is in the best interest of the customer to have a coordinated system. A typical integrated system will use Allis-Chalmers' basic industrial equipment, Consolidated's special instrumentation and IBM's data processing equipment.

Solvay Process Division

of Allied Chemical plans expansion of dense soda ash facilities at Baton Rouge, La., which will almost double previous capacity when completed in 1962. Solvay's other major dense soda ash manufacturing plants are at Detroit and at Syracuse, N. Y., where facilities were enlarged last year.

This newest addition is the fifth expansion of soda ash facilities at Baton Rouge since 1935. Solvay also produces chlorine, caustic soda and polyethers at this plant.

Metal Hydrides Inc.

Beverly, Mass., has entered into a reciprocal agreement with Mö och Domejö Aktiebolag, Ömsköldsvik, Sweden, for development of sodium borohydride in the pulp and paper field. Under the terms of the agreement, MHI will administer licenses owned by Mö och Domejö in the United States for the treatment of cellulose and cellulosic materials with sodium borohydride.

"With the recent acquisition by Metal Hydrides Inc. of a multi-million pound-per-year sodium borohydride production facility and the resulting downward pricing of sodium borohydride to \$7.50 per pound for sodium borohydride SWS in tank car quantities," Lewis W. Davis, MHI president, reports, "our company is in a very favorable position to exploit discoveries in major fields of industrial application."

In addition, the two companies have agreed to exchange all application technology in this field as is deemed practical by either company.

Some pulp bleaching experts see sodium borohydride as having good potentials if the cost can be lowered.

Knox Felts

KNOX WOOLEN COMPANY

CAMDEN, MAINE

America's First Manufacturer of Endless Paper Machine Felts

Chem show stirs pulp-paper interest

NEW YORK—If proof is needed that the pulp and paper and chemical industries are kin, there was an abundance of it at the big 28th annual Chem Show which crowded four floors of the Coliseum, Nov. 27–Dec. 1. Of a total of 535 exhibitors, at least half were equipment manufacturers who do business in pulp and paper.

The show was the biggest in the 46-year history of the exposition. Attendance reached nearly 35,000 persons. Some 200 companies that wanted to exhibit had to be turned down because of lack of space.

Theme of the show was "manufacturing economy." The theme was especially evident in fresh innovations in automatic equipment and uses of new plastics.

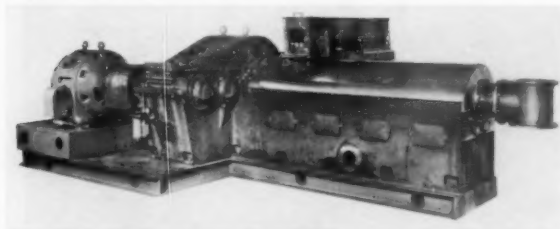
Two new corrosion-resistant plastics were introduced by Tube Turns Plastics, Inc. One is vinylidene fluoride resin, developed by Pennsalt Chemicals Corp. Tube Turns has fabricated the resin into pipe, which has been used experimentally to handle such highly corrosive fluids as hydrochloric acid, hot caustic soda, wet chlorine and chlorine dioxide. Useful temperature range of the resin is said to be from below -80F to above 300F. Other properties: strength, weatherability, thermal stability.

The other plastic is called "Halon" fluorohalocarbon by its developer, Allied Chemical Co. Tube Turns has used it to make a lining for a prototype valve, which could herald development of lined piping.

Following are brief descriptions of other items that should be of interest to the industry.

Link-Belt Co.—A new wide speed range differential P.I.V. drive for ratio ranges over 6:1. With a constant input speed, this P.I.V. unit can provide output speeds from zero to as high as 645 rpm. Capability for stepless and infinite speed adjustment can be utilized partially or completely.

Bauer Bros. Co.—A Pressafiner of 500 hp, the biggest yet built. It has a capacity of 200 tpd of semi-chemical, cooked chips. Two of these high-pressure liquor-extracting devices are used in series at the new Menasha Wood Products pulp mill in Coos Bay, Ore., achieving 90% removal. One is used with a smaller unit at Otsego Falls Paper Mills in Michigan.



BAUER BROS.—Biggest Pressafiner

Multi-Metal Wire Cloth Co.—"Drumtite" vibrating screen cloths for machines with tension bars and tacking frames. They are used for white water off a paper machine in New England, and also for clays, fillers, etc., elsewhere.

Buell Co. (from Waagner-Biro, Austria)—A double venturi scrubber which separates entrained solids from high temperature gases with low pressure drop and low water needs.

Westinghouse drives world's fastest kraft paper winder



Two Westinghouse 300-hp Life-Line H d-c motors and a Westinghouse 400-kw motor-generator drive this 7200-fpm winder, rated the world's fastest, for Union Bag-Camp's new #7 machine at Savannah. These drives assure uniform threading speed, smooth and rapid responses, simple and easy operation. Westinghouse features in these drives also reduce downtime to a minimum, improve accessibility and safety, simplify maintenance. For more details on this #7 machine, see the next page.

J-96162-1

Westinghouse



MONTMORENCY ● *the mills*
● *the pulps*
● *the sales offices*

● *the mills*

Anglo-Canadian Pulp and Paper Mills, Ltd., Quebec, P.Q., Canada, produces 80 tons of boxboard, 200 tons of pulp and 1,000 tons of newsprint *a day*.
Dryden Paper Company, Limited, Dryden, Ontario, produces 400 tons of pulp and 180 tons of bleached and unbleached kraft paper and board *a day*.

● *the pulps*

- Anglo-Canadian WONDERCHIP unbleached sulphite
- Dryden bleached kraft
- Dryden unbleached kraft
- Dryden specialty krafts (semi-bleached, condenser, photographic, anti-tarnish, etc.)

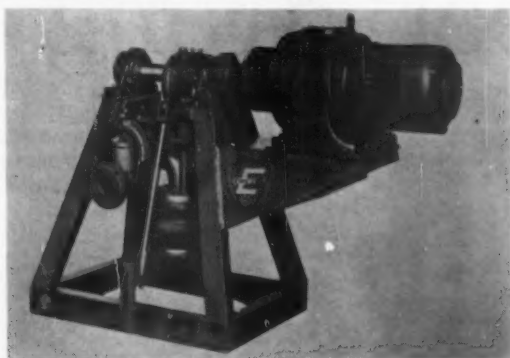
● *the sales offices*

In New York City—Room 1254, 230 Park Avenue; phone MU 4-1100
In Chicago—20 North Wacker Drive; phone RA 6-3730

MONTMORENCY PAPER COMPANY, INC.
IN CANADA: ANGLO PAPER PRODUCTS, LIMITED

... Chemical Show

Eimco Corp.—A membrane pump and a continuous belt filter. The apparatus can keep a cloth in constant alignment without stretching, biasing or mooning.



EIMCO CORP.—New membrane pump

Dorr-Oliver, Inc.—Two Clareators in use at West Virginia Pulp and Paper Co.'s Covington (Va.), mill, which are credited with reducing BOD loadings in mill effluent from 45,000 to 28,000 lbs./d. Its VSM screen is not used yet for pulp fibers. Its 6-in. Dorrelones were displayed.

Sprout-Waldron Co.—A pellet-making machine that is being tried out for production of woodpulp pellets, thus facilitating pulp shipments.

Allis-Chalmers Mfg. Co.—A new Vari-Tex speed changer.

W. S. Tyler Co.—A Ty-rocket screen for rugged, durable screening equipment. Vibrated by an off-balance shaft supported in two bearings, it imparts a high speed, circle-throw motion to screen surface.

Bird Machine Co.—Centrifugal filters, 40 × 60 in., each with a capacity of 200 tpd of dry weight calcium carbonate. Two used in parallel at Champion Papers' Pasadena (Tex.) mill were featured at this exhibit. Lowered moisture and increased solids content of lime mud and more efficient burning were noted as improvements.

Bemis Bro. Bag Co.—An automatic system for feeding, weighing and handling multi-wall bags.

Swenson Evaporator Co.—Evaporators.

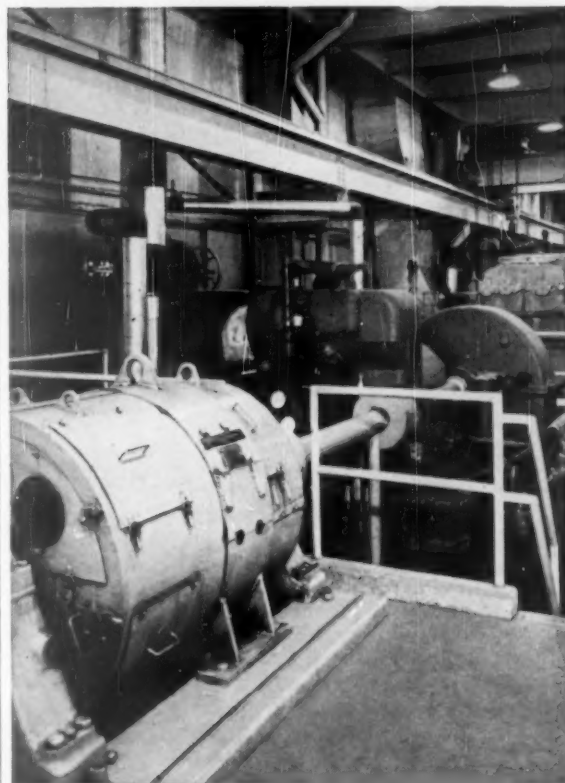
Chicago Bridge & Iron Co.—Overlay welding for digesters and other vessels as a means of remedying corrosion, which has been introduced as a field service by its Portland (Me.), division.

Haveg Industries, Inc.—A polyester epoxy and furane and phenolic thermosetting plastic materials for use in construction of mill components subject to corrosion—such as tanks, piping, chests, ducts, hoods, stacks, and fans.

International Nickel Co., Inc.—Cryogenic nickel steels for low-temperature service. These steels include the 2.25% nickel, the 3.50% nickel, the 9% nickel and nickel stainless steel, which are employed at temperatures ranging from -75F to -450F.

Engelhard Hanovia, Inc.—A process for lining pipe with a wide variety of thermo plastics, including chlorinated

Westinghouse turbine drives world's fastest kraft paper machine



Union Bag-Camp's new #7 machine rated at 3000 fpm. Its line shaft is driven by a 3,000-hp Westinghouse steam turbine and reduction gear. This turbine is of the multi-stage, non-condensing type, operates at a normal 400 psi and 750°F., exhausting at 80 psi . . . and is controlled within $\pm 0.1\%$ of rated speed. Westinghouse design permits operation from maximum to zero speed on governor control and the operating speed range is always below first critical speed . . . factors which insure exceptional control, reliability and equipment life. For more details on Union Bag-Camp's new machine, see next page.

J-96162-2

Westinghouse



How controlled stress makes Glasteel™ strong



If you're considering glassed-steel equipment for generating chlorine dioxide... but are concerned about damage from thermal or mechanical shock... read on to learn how stress data recorded by the research apparatus above are translated into structural strengths.

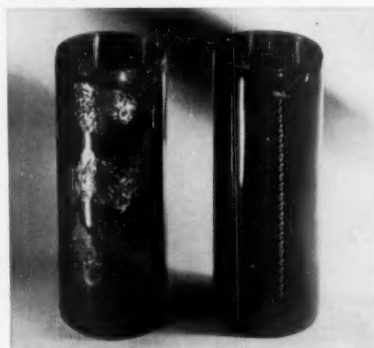
The glowing sample of Pfaudler Glasteel has just undergone a stress-strain analysis. Differential expansion was recorded during controlled heating. This was done to determine how much *compressive stress* is present in the glass.

Such stress (called a compressive cushion) is designed into Glasteel to permit it to bend, stretch, breathe—absorb thermal shock.

And the precise stress-strain tests which we employ permit us to predict, and control, the amount of compressive cushion in Glasteel equipment, over the complete range of operating temperatures normally encountered.

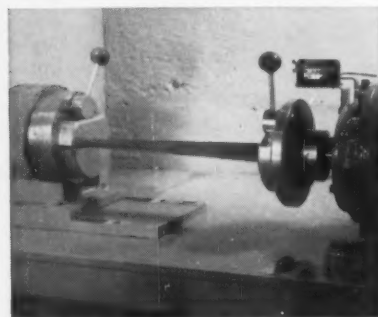
260° Δ T. The controlled stress in Glasteel vessels to 2000 gallons gives

you protection against the shock from an instantaneous 260°F. temperature difference, at an operating temperature of 250°F. And there is quite a safety margin in this figure, too, since it contains a very generous factor of three, based on carefully controlled laboratory experiments.



In spite of an unusually high 455° thermal shock, no damage was done to the lab sample of Glasteel pipe at right, glassed with today's standard Pfaudler glass. Pipe at left was glassed with our previous standard.

Locked together. Glasteel as a material of construction is also strong in other ways. Chemical action during firing *locks* the glass and steel firmly together. Like this:



Even though the Glasteel bar has been twisted to the elastic limit of the steel, the glass-to-steel bond and the glass itself remain intact.

Excellent corrosion resistance. Of course, the big reason that you'll find Pfaudler Glasteel used for bleach-making equipment is its exceptional corrosion resistance.

The ability of Glasteel to stand up to ClO_2 corrosion throughout a plant—from raw materials to finished product—has made it the preferred material of construction for *complete* systems.

When we say complete that's exactly what we mean—storage tanks, scrubbers, absorbers, strippers, generators, pumps and piping. All are available from Pfaudler.

Project Engineering, too. In addition, Pfaudler offers the services of its project engineering group. This group, functioning as a temporary addition to your own staff or your consulting firm, can help with any or all stages, from system design to start-up.

Bulletin 991, "Pfaudler Chlorine Dioxide Generating Plants," will give you the complete story. For your copy, or answers to specific questions, write to: Pfaudler Division, Dept. PP-121, Rochester 3, New York. In Canada, contact Pfaudler Permutit Canada Ltd., Toronto.



PFAUDLER PERMUTIT INC.

Specialists in FLUIDICS... the science of fluid processes

... Chemical Show

polyether (Penton), Teflon 110 FEP, Nylon, polyvinyl chloride, high-density polyethylene, epoxy and cellulotics.

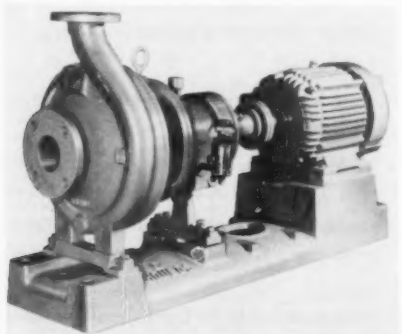
A. O. Smith Corp.—A pipe composed of glass filaments and epoxy resins, which the company says is conservatively rated at 150 psi and 150F.

Pfaudler Permutit Inc.—Nucerite, a family of ceramic-metal composites, one formulation of which is now offered to construct reaction vessels up to 2,000 gal. capacity. Nucerite vessels available currently have an operating temperature of 700F in most corrosive environments. The upper limit is dictated by the mild steel base used, and the material, with other substrates, is withstanding corrosive vapor-phase environments at temperatures up to 1,500F, according to the company.

Field-cut Glasteel pipe and fittings in new sizes. Glasteel will handle all acids, except hydrofluoric, at temperatures to 350F, depending on concentration.

Fansteel Metallurgical Corp.—An all-tantalum pump for corrosive fluids, in 0.25 to 2 hp., single- or three-phase. Capacity reaches 100 gal./minute under low head conditions.

Goodyear Pumps, Inc.—A positive displacement pump the rotating element of which can be replaced simply by removing the casing. This new design feature means that only the element itself has to be stocked, according to Goodyear. The unit is available in capacities up to 230 gal./minute; it develops 100 psi, lifts to 30 ft. of water.



GOULDS PUMPS—Horizontal, single-stage pump

Goulds Pump, Inc.—A horizontal, end-suction, single-stage pump (model 3195) with a capacity range of 5 to 775 gpm. Head range is 10 to 425 tdl. Temperature limits are -350F and 500F. Working pressure is 0 to 275 psia. The company says the new pump can be used for chemical processes in all industries.

Teknika, Inc.—Defoaming equipment that employs intense sound waves to destroy foam. The sound waves are beamed at the foam by a sonic energy transducer. Major application in pulp and paper is in black liquor oxydizers.

Foxboro Co.—A flange-mounted D-P cell modified to serve as a one-to-one straight pressure repeater. Output of this repeater goes to low pressure side of the D-P cell. The bottom cell records only the actual level in the tank; there is no purging, or clogging. It may be used on Deculator level, or in specific gravity applications such as clays, makeup, caustic solution, black liquor. ■

Westinghouse helper drives on world's fastest kraft paper machine



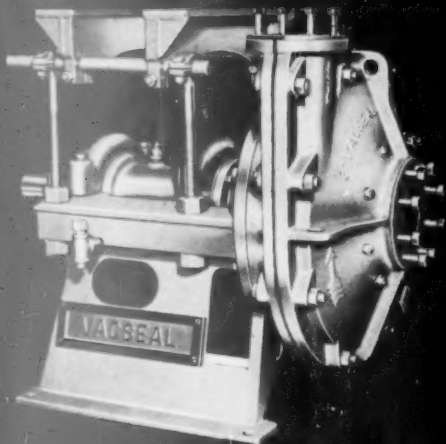
Twenty-two Westinghouse Life-Line H d-c motors make up the helper drives on both wet and dry ends of this new Union Bag-Camp high speed machine. These Westinghouse motors feature special insulation (much longer insulation life than ordinary Class B motors), a controlled ventilation system and 35% increase in commutating ability . . . to give this machine close regulation and faster accelerations, exceptional performance. For more details on this #7 machine, see next page.

J-96162-3

Westinghouse



GALIGHER VACSEAL



CUSTOM ENGINEERED FOR
YOUR PUMPING
REQUIREMENTS



LIME SLURRIES, GREEN LIQUORS,
BLACK LIQUORS, CLAY SLURRIES,
CHLORINATED PAPER STOCK,
CLARIFIED WHITE LIQUORS

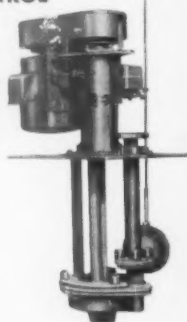
COMPANIONS FOR MATERIAL FLOW CONTROL



GALIGHER DELTA® VALVE



GALIGHER
SQUEEZE
VALVE



GALIGHER VERTICAL
SUMP PUMP

Both feature straight-through flow replaceable diaphragms. Valve bodies available in cast iron, aluminum and ductile iron.

Exclusive double-suction, thrustless design. No packing, mechanical seals or submerged bearings. Sizes from 1½" to 12" in a variety of materials for corrosive and/or abrasive service.

- Exclusive impeller design eliminates gland leakage.
- Sealing water is not required.
- Designed to handle abrasive slurries, corrosive solutions, high-density pulps, semi-solids, sludges or slimes.
- Available in sizes from 1½" to 8" to handle capacities up to 3,600 GPM, with heads up to 100 ft. and particle sizes up to ¾".
- Impellers and replaceable, non-collapsible liners furnished in Natural Rubber, Neoprene, Hypalon, Buna or Butyl reduce replacement costs.
- Pumping elements also available in Cast Iron, Stainless Steel, and other alloys.
- Gland parts are available in Teflon, Ceramic, Haveg, Bronze, Stainless Steel, Cast Iron, Hastelloy, or other alloys.
- Direct or V-belt driven models available.

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GALIGHER

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VP 525

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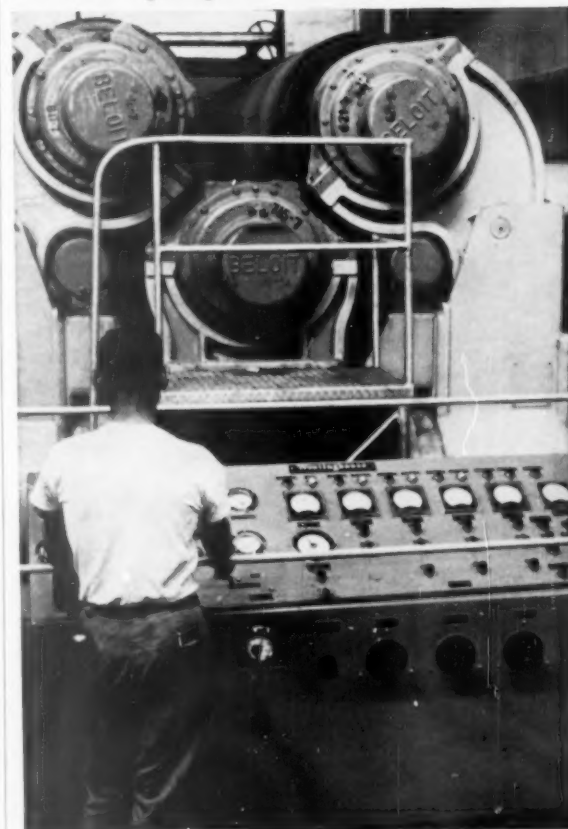
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Westinghouse controls on world's fastest kraft paper machine



Westinghouse static regulators control all wet and dry end helper drives, as well as the winder drive. In use by more than 500 paper producing and finishing operations, this Westinghouse static control provides simplified, automatic regulation . . . maintains paper quality at high speeds. For more information on how Westinghouse serves Union Bag-Camp's high-speed machine, see the next page.

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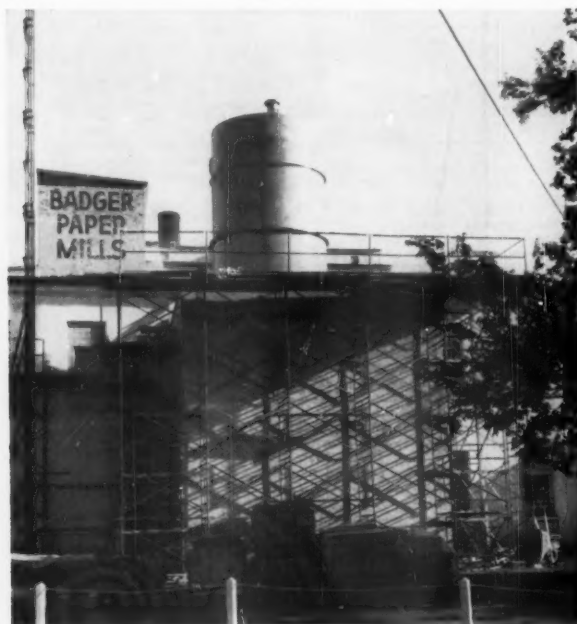
Westinghouse





BADGER PAPER MILLS, INC. INSTALLS NEW IMPCO CHLORINATION TOWER

Badger Paper Mills, Inc., Peshtigo, Wisconsin, manufactures fine bleached sulphite papers. They recently installed this chlorination tower which was steel fabricated, rubber-lined, pressure-vulcanized and shipped from Nashua, N. H., in one piece. This tower, 44 feet in length and 11'-6" in diameter is one of many rubber-lined vessels built completely by Impco and lined with Impco compounded rubber. This autoclave vulcanizing method eliminates troubles often experienced with "on location" lining and curing of rubber.



IMPROVED MACHINERY INC.

N A S H U A , N E W H A M P S H I R E

IN CANADA: SHERBROOKE MACHINERIES LTD., SHERBROOKE, QUEBEC

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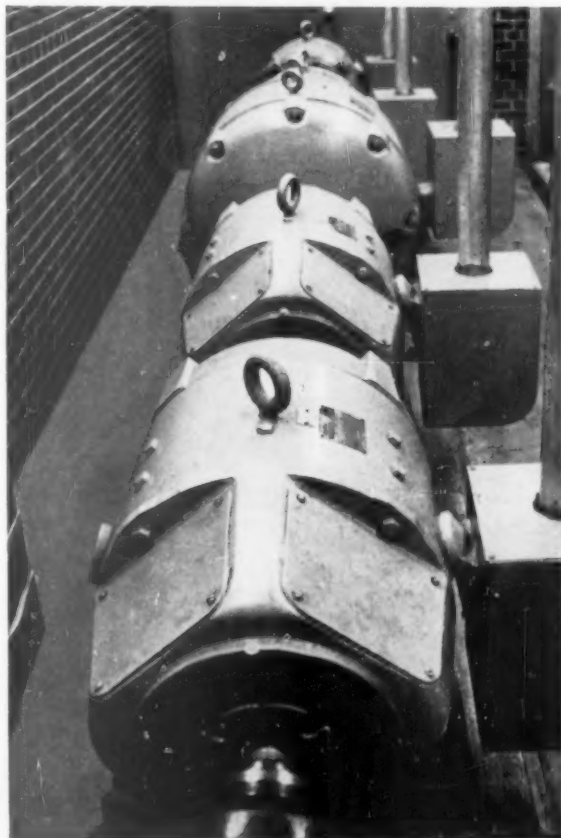
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Westinghouse d-c generators supply power to world's fastest kraft paper machine



Two Westinghouse adjustable voltage d-c drives (330-kw for fourdrinier section; 250-kw for wet-felt section) power the wet end of the new Union Bag-Camp machine. Westinghouse exclusive insulation system assures extra service life for these important drives. Four Westinghouse Life-Line H d-c 40-kw generators power the dry-end helper drives, permit close regulation, faster accelerations, maximum performance. For more details on the new #7 machine, see the next page.

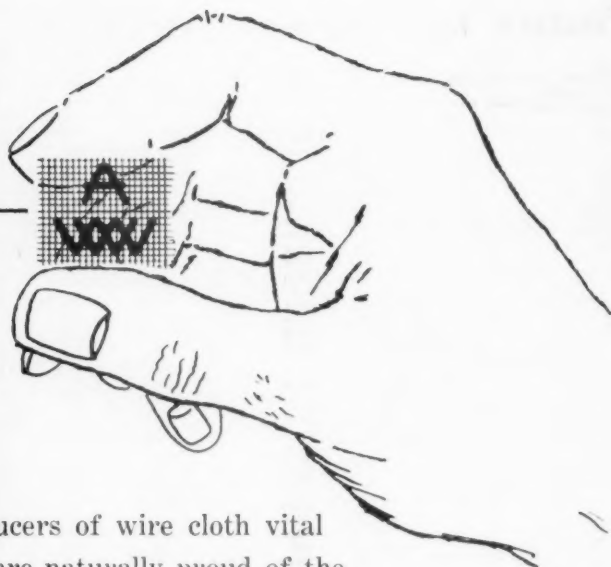
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*Work Wonders
With Wire!*

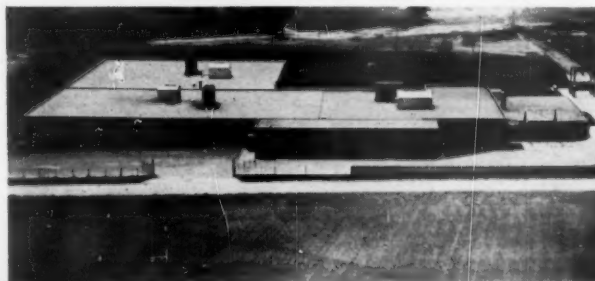


As the world's largest producers of wire cloth vital to the paper industry, we are naturally proud of the industry's acceptance of this superior product. We sincerely believe, however, that much of the acclaim attributed to our product must be shared with those conscientious craftsmen within our organization who constantly strive to make our product better... who for more than 60 years have dedicated their efforts to assure all concerned that — "Appleton Wires Are Good Wires"!

APPLETON WIRE WORKS, Corp.

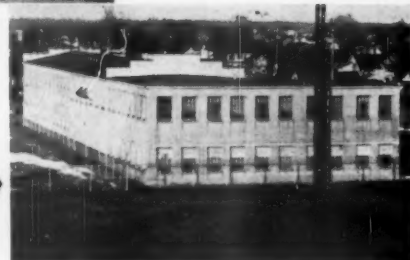
Plants at Appleton, Wis. and Montgomery, Ala.;
International Wire Works, Menasha, Wis. An Affiliated Company

MONTGOMERY, ALA.



◀ APPLETON, WIS.

INTERNATIONAL WIRE
WORKS - MENASHA, WIS. ➔
AN AFFILIATED COMPANY



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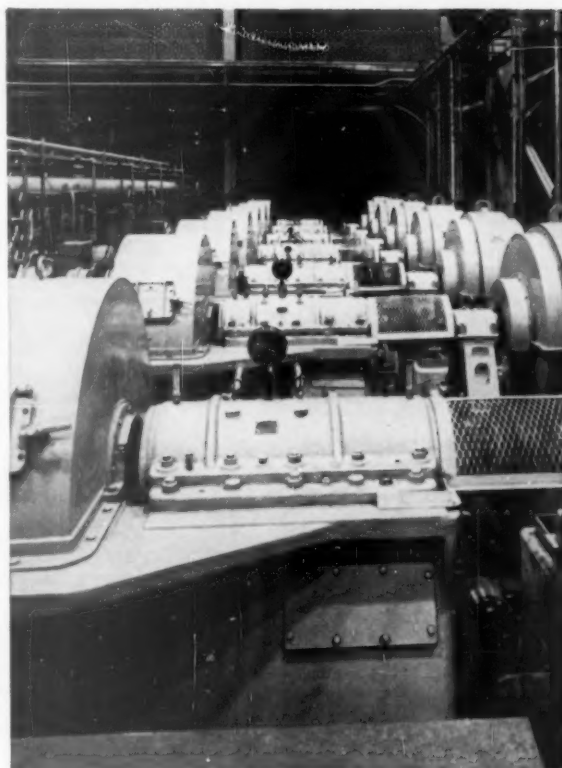
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YOU KNOW EVERYTHING that goes on in this department . . . I'm placing you in charge of a big clean up . . . get a broom!

Westinghouse a-c motors drive auxiliaries for world's fastest kraft paper machine



Westinghouse Lifeline A motors, of the totally enclosed, fan cooled type, were selected for the heavy duty service involved in powering numerous pumps and Sturtevant fans. Westinghouse motors, which combine complete accessibility with top performance, are used to power the seven refiners in use with Union Bag-Camp's new #7 machine. There are more details on the next page.

J-96162-6

Westinghouse



VITAL STATISTICS

Facts You Need To Know For Planning Sales
To The Pulp & Paper Industry

Condensed below are pertinent statistical data, media and marketing men will find of quick and direct application to the selling of machinery, supplies and services to the pulp and paper industry of the United States. These data and supporting facts highlight meaningful trends in an exciting, soundly growing industry. If you wish more information or have specific questions on the U.S. industry, please write PULP & PAPER's sales headquarters at 370 Lexington Avenue, New York 17, N.Y. (Murray Hill 3-9294). Data on the international industry may be obtained from PULP & PAPER INTERNATIONAL at the same address.

GROWTH TRENDS — U.S. PAPER & PAPERBOARD PRODUCTION

YEAR	TONNAGE
1958	30,842,939
1959	34,007,058
1960	34,282,000
1961*	35,000,000*
1962**	37,400,000**
1963**	38,000,000**
1965**	39,400,000**
1970**	42,900,000**
1975**	47,100,000**
1980**	52,200,000**

*Projection based on first six months' figures.

**Projected totals based upon estimated population growth and per capita consumption.

THE TREND IS UPWARD!

FORECAST OF CAPITAL EXPENDITURES, U.S. PULP, PAPER & PAPERBOARD INDUSTRY

The dramatic figures shown below portend steady future growth for the industry. Data was compiled by PULP & PAPER's own research staff. Although figures are "estimates", they represent conservative projections based on industry past performance, per capita consumption of paper products, population growth forecasts, and other significant data.

1961	1962	1980
\$730,000,000	\$750,000,000	\$1,000,000,000

For 1961 approximately \$438,000,000 (60%) will be spent for replacement of existing equipment and \$292,000,000 (40%) for new installations.

THE TREND IS UPWARD!

GEOGRAPHICAL ANALYSIS OF THE INDUSTRY

Area	Number of Mills	Pulp, Paper & Paperboard Production	% of Total Production	% of Capital Spending	% of P&P Circulation
New England and Middle Atlantic	474	11.2 Mil. Tons	17.1	12% or \$87.6 mil. (1331 subs.)	19.9%
East and West North Central	320	10.7 Mil. Tons	18.2	13% or \$94.9 mil. (1323 subs.)	19.8%
South	239	29.0 Mil. Tons	49.6	42% or \$306.60 (2350 subs.)	35.2%
West	138	8.8 Mil. Tons	15.1	33% or \$240.9 mil. (1674 subs.)	25.1%
TOTALS	1171	59.7 Mil. Tons	100.0%	100% or \$730 mil. (6678 subs.)*	100%

*Above figure based on analysis of May, 1961 issue and includes U.S. subscriptions only. Total circulation this issue was 8338.

The above table demonstrates geographical dispersion of the industry and how PULP & PAPER provides the most effective, balanced circulation coverage of the industry. In the SOUTH and the WEST, (which together spend approximately 75% of the capital outlays and produce 63% of total tonnage), PULP & PAPER has over 4000 paid subscribers.

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PULP & PAPER

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THE TREND IS TO PULP & PAPER

Approximately 310 advertisers use PULP & PAPER on a steady basis, 95 of these as their exclusive medium. Both figures increase annually. PULP & PAPER's gains in advertising (new advertising as well as increases from old advertisers) consistently exceed those of all publications serving the field. In the year 1960, PULP & PAPER's advertising volume gains over the preceding year were greater than the combined gains of all competitive journals. In 1961 the trend continued, P&P gaining approximately 130 pages. Competitive journals combined lost more than that.

PULP & PAPER EDITORIAL LEADERSHIP

PULP & PAPER has the largest staff of full-time editors serving the field, backed up by the finest editorial research available (Eastman Research Organization and Cortland G. Smith, Editorial Consultant). Demonstration of PULP & PAPER's editorial leadership was marked by its winning the coveted Jesse H. Neal Award. Recent dramatic changes in format and frequency have further strengthened PULP & PAPER's basic benefits to readers and advertisers alike.

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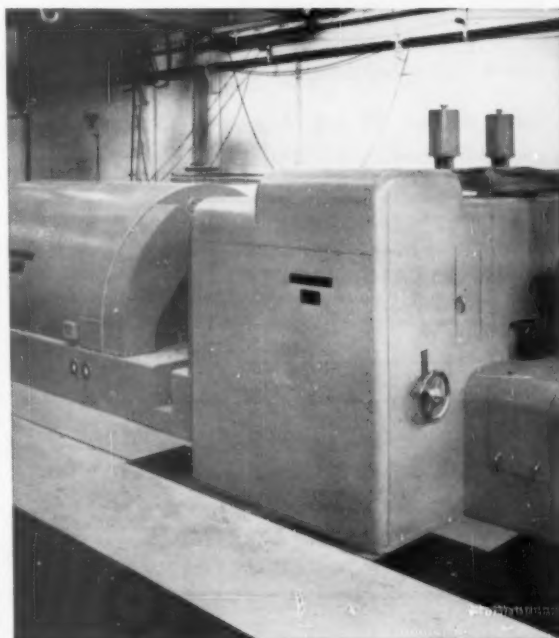
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Westinghouse turbine generators power Union Bag-Camp #7 machine expansion



To handle the increased power load required by Union Bag-Camp's #7 machine, a new Westinghouse turbine generator (rated at 25,600 kva) was installed in the power plant at the Savannah, Ga., facility. Of the hydrogen-cooled non-condensing type, this Westinghouse turbine generator uses inlet steam at 1200 psi, 950°F, exhausting at 150 psi. For more information on the new #7 machine, see the next page.

J-96162-7



"YOU ENGINEERS been tryin' to locate that water main for three days—now let's try it my way!"

Westinghouse



CHEMICAL ENGINEER

The erection of an all-new paper mill offers an unusual opportunity for growth and experience to a technical man. We are seeking a graduate chemical engineer or paper technologist with 2-6 years experience in the fine paper field for our technical department.

Working knowledge of high speed, light-weight coated papers desirable.

Position offers the challenges of assisting in the startup of a high speed paper machine and trailing blade coater as well as the opportunity to work with a high speed pilot coater.

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BOWATERS CAROLINA CORP.
CATAWBA, S. C.

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Groundwood Specialties Mill in Northern New York is seeking an Engineer to round out our Plant Engineering Staff. The man we seek should be a graduate Mechanical Engineer or equivalent, and have several years experience with Pulp Mills and Stock Systems, preferably with some experience in close work with the Maintenance Department. He should also be qualified for future promotions. Excellent fringe benefits and salary commensurate with experience and ability. Send resume with reply to Box P-430, PULP & PAPER, 370 Lexington Avenue, New York 17, N. Y.

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6 E. Monroe Chicago ANdover 3-1970

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The last word

Paper Week and the "Public Image"

Another "Paper Week" is fast approaching.

From Feb. 17th to Feb. 22nd, there will be thousands of pulp and paper industry executives, salesmen, technicians and suppliers swarming in mid-Manhattan. They will come from all over the world.

Outside of theater ticket brokers, taxi drivers and readers of the financial news, hardly anyone in New York will be aware of what is going on. Hardly anyone in the country will know.

In past years, PULP & PAPER has suggested that "Paper Week" should be made as well known as other successful "weeks." But to do this successfully, requires a lot of advance planning and preparation.

Nard Jones, former associate editor of PULP & PAPER, suggests that the interest of editors across the nation should be aroused in Paper Week events (see page 40).

We suggest that the state editors for Associated Press and United Press International be reached with feature material long in advance, perhaps by mill groups in each of the major pulp and paper states. No matter what may go out from New York on the wires—and Paper Week would be fighting worldwide news for time on these trunk wires—the state editor is the "boss-man" who decides what goes on his own state relay or hook-up. And he sends material by mail, in advance.

Think back over the publicity, such as it was, for "Paper Week" in past years, and there is just one story that really stands out. The pulp and paper companies had nothing to do with it. It was an allied industry, American Cyanamid, which made the nation Paper Week-conscious with its exhibit and stories about paper hats, clothes, etc.

This story landed on front pages, not the financial pages in the back.

There's a lesson in this. Cynics may say we are a long way yet from wearing paper clothing and swim suits. Be that as it may, there was human interest—the common touch—in that story.

What makes a good book or a good magazine story? It is that slight knack of making the particular into the universal. This is also what puts good feature stories on page 1 of newspapers. The practical paper man or the serious technician may raise his eyebrows, but this is how to get "the image" of the paper

industry over to the public. The automobile industry, the oil industry, the steel industry, chemicals, aluminum, electronics—many of them have done it.

The paper industry is not similarly recognized because it hasn't done this. For example, there are lots of exciting new uses for paper. Maybe Paper Week is a good time to tell the public about them.

Open and Closed Meetings

There is a complaint about Paper Week by an editor of one of the nation's leading newspapers. We toss it out for what it may be worth. There's time to make amends.

He is frustrated and discouraged by the great number of closed meetings at Paper Week. In this regard, there has been marked improvement in recent years, with several open meetings on the program. These are pretty general in their scope.

Pollution Abatement Praise

Speaking of creating a favorable industry "image," the chemical processing industry seems to have what the pulp and paper industry certainly does not have.

There is a new federal water-pollution-control act. PULP & PAPER's exclusive report from a White House aide way back on March 20 revealed that President Kennedy was determined to push it through Congress. Which he did.

Gordon McCallum is the chief of the powerful federal Division of Water Supply and Pollution Control which it created.

Now he lauds the chemical processing industry—says it has been "progressive" in its spending on pollution abatement. He says whenever a chemical processor is informed of a bad situation, the processor immediately seeks ways to remedy. Mr. McCallum says he appreciates the millions that chemical processors spent on pollution abatement research.

We say Mr. McCallum could say the same thing again—substituting "pulp and paper industry" for "chemical processing industry."

There are several successful new ways to clear up streams which this country would never have known if the pulp and paper mills had not developed them.

Then, why can't pulp and paper win praise from men like Mr. McCallum?

New John Deere 1010



"Just what I need for my job!"

A John Deere "1010" with 610 Bulldozer makes pulp logging pay for Chuck Drosz of Rainier, Oregon. The owner-operator, skidding alder, fir and cedar on steep slopes, averages a thousand feet per turn. After the logs are bucked to length, the "1010" finishes the job by loading the truck.

"The '1010' is just what I need for my job," Drosz reports. It has plenty of power and responds well to controls. The inside dozer has many advantages for my work, too."

For the best in maneuverability, the "1010" is available with a hydraulically operated wet-clutch direction re-

verser. Same advantage is provided with the "1010" and 850 Log Loader. Free-spooling winch and trailing or integral log arches insure top work capacity in any kind of logging country. Inside- and outside-mount dozers are available, including the 612, with single lever T-bar hydraulic control for 6-way on-the-go blade adjustment.

Check the yellow pages for the name of your nearest John Deere dealer. Ask for a demonstration of new "1010" earning power, plus facts on the John Deere Credit Plan.

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